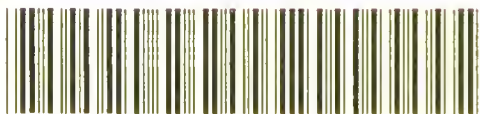


# WOMAN AND MARRIAGE

## A HANDBOOK

By MARGARET STEPHENS

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## WOMAN AND MARRIAGE



# WOMAN AND MARRIAGE

A HANDBOOK

BY

MARGARET STEPHENS

WITH A PREFACE BY

DR. MARY SCHARLIEB

AND AN INTRODUCTION BY

MRS. S. A. BARNETT

T. FISHER UNWIN

LONDON: ADELPHI TERRACE

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## PURPOSE

To all whom it may concern :

“Endeavour to be patient in bearing with the defects and infirmities of others, of what sort soever they be ; for that thyself also hast many failings which must be borne with by others.”—THOMAS À KEMPIS.

THE aim of the writer is to be of some assistance to others of her sex by lightening the burden of indifference, ignorance, and superstition carried at present by so many of them, by putting before them as clearly and concisely as possible those everyday matters of health which so vitally and intimately affect their own and others' happiness.

Ignorance and innocence are not synonymous ; instructed innocence is not a contradiction in terms, and it is to it we must look to save the fatal mistakes which have been the ruin of so many lives.

Written primarily for the use of the expectant mother, such a handbook would seem incomplete without the addition of some kindred points ; its bounds have therefore been slightly widened to admit of the further treatment of its original purpose. It makes no profession to be either an exhaustive treatise or a literary effort. A wife and mother who has studied these questions herself, and has experienced the profit of that study, speaks to any other wife and mother who, through lack of opportunity, thought, or inclination, may not have done so.

There may be already many books on the subject, but any of a sufficiently explicit and practical character seem difficult to discover ; and all sorts and conditions of women, to the writer's personal knowledge, feel the need of such a handbook. In fact, it is owing to this obvious need, and at the urgent request of several wives and prospective wives, that the attempt is here made to supply that want ; and many of the points touched upon, which, to some readers, may appear unnecessary or venturesome, or too " difficult " to handle, are those about which the writer has been questioned more than once, and which may therefore be of use to a wider circle of inquirers.

Much of the book has been written while in

the engaging company of little children, and all of it during a busy life.

Such as it is, then, it goes forth on its mission, despatched in the humble but positive conviction of the needfulness of some such book, and cheered on its way by the approval of those kind women who have encouraged its production and welcomed so warmly its advent.

Apart from her husband, to whose interest and help all through the accomplishment of the book is so largely due, the writer owes many grateful thanks for invaluable criticism and assistance to Dr. Mary Scharlieb, Mrs. S. A. Barnett, Dr. L. Martindale, Dr. H. L. P. Hardy, Dr. D. J. Scott, and others.





## PREFACE

THE author has done me the honour of asking me to write a few lines of Preface to her book on "Woman and Marriage." I comply with her request with much pleasure, because I think that her book is an honest effort to direct the attention of women to many duties which have hitherto been much under-estimated by them. I cannot say that I agree entirely with the author—probably no two people could agree in all their views as to a woman's duty towards herself, her husband, and her children—but I think that she has been singularly successful in presenting a sane and hopeful view of woman's life, and I hope that her little book will have the success and usefulness it deserves.

MARY SCHARLIEB.

149, HARLEY STREET, W.

*May 2, 1910.*



## INTRODUCTION

THE subjects that the author deals with in her book "Woman and Marriage" are subjects which necessarily occupy the mind of every married woman—and yet intuitively they are but little spoken of. Consequently there exists much ignorance on the laws which govern these and all other natural functions ; and injurious results often follow actions taken in obedience to impulse in one sex and accepted with self-sacrifice by the other.

The author has tried to place facts before her readers with delicate courtesy ; but surrounded as these matters have been for generations with an atmosphere of coarseness or superstition, her task is not an easy one. It has been undertaken with deep earnestness of purpose and because the need of telling her sisters simple sex facts had been brought within her experience by knowledge of sad cases of unintentional sin and unmerited suffering. The

chapter called " The Wisdom of a Child " seems to me to contain far-reaching truths, and if parents or teachers would fearlessly face sex union as the source of creation, without thought of or reference to passion (as can be so easily done in reference to the bees and pollen) it would pave the way to the further teaching which must be faced when the lad has to be told, either directly or indirectly, of desires which need all his forces of control, and the girl of her power to stimulate and so debase, or to regulate and so elevate, the magnetism of her sex attraction.

If this book serves to make women think, and think reverently, of sex matters, and question themselves on their duties and rights in relation to them, it will have done good apart from the presentation of facts.

Our grandmothers and mothers thought it their duty to have as many children as the impulses of their lords dictated. The young women of to-day are striking against child-bearing, and resent the imputation that for them motherhood may be their profession. Both may be wrong, for duties and rights have each to be given their place. Careful thought has to be brought to the service of the subject, but thought without knowledge is crippled. This



knowledge the author has placed before her readers, to be blended with thought and strengthened with prayer (prayer necessary for the sacrifice which the acceptance of wifehood demands), and then used for the guidance of those women who agree with me that the greatest honour which can be given to one of our sex would be to have it honestly said of her that "the heart of her husband doth trust in her," and "her children shall arise and call her blessed."

HENRIETTA O. BARNETT.

3, LITTLE CLOISTERS,  
WESTMINSTER ABBEY.



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PART I  
THE WOMAN AS CHILD



## CHAPTER I

### THE WISDOM OF A CHILD

“Is not the world full enough of riddles already, without our making riddles too out of the simplest phenomena?”

—GOETHE.

THOSE who are familiar with intelligent children know how great a part in their lives curiosity plays. Some of them are veritable little notes of interrogation, finding matters of the liveliest interest and speculation in everything mortal and immortal—from the wriggling of a worm to the profoundest problems in theology. As they grow older their wholesome curiosity grows also ; they probe deeper into the cause and wonder of life, into the how, when, and wherefore of their own and of every other existence.

Supposing that it were possible to keep from them all knowledge of sexual matters, to be certain that they would remain innocently ignorant until they reached years of discretion, it still remains doubtful whether such a course would be the best to pursue. But the chances are so enormous against the possibility of the average child remaining in this condition that,

among clean-minded parents who give the matter sufficient thought, there can surely be little doubt of the wisdom of forewarning and forearming their children. "The dangers of knowledge are not to be compared with the dangers of ignorance. A man is more likely to miss his way in darkness than in twilight: in twilight than in full sun."<sup>1</sup> And it is the duty of those who are the guardians of child-life to forestall any risk of their wandering or being tempted off the right way of living, by instructing them gradually and lovingly in the wonders of creation.

The atmosphere of prudishness in which many young people are brought up is so thoroughly assimilated by them that they cannot, through this false modesty, force themselves to ask one single natural question of their own parents. They prefer instead either to think such matters over for themselves, keeping their eyes extremely well opened for the chance of any stray information, or to gratify their curiosity by threshing out points of interest with convenient friends or dependants, frequently in a most undesirable way.

Because of this shyness in asking them questions, many parents imagine that their children are never troubled by curiosity, that such matters are without interest to them. Not once, but many times, have the children been known to say vaguely but positively, "We could not pos-

<sup>1</sup> Bishop Whately.



sibly talk to Mother about these things, you know. Whatever would she say?" While at the same time their parents either bemoan their children's want of frankness and confidence, or else they say unconcernedly—indeed, rather thankfully than otherwise—"Oh, they never give the matter a thought. There is time enough to tell them when they ask us." Such a time, however, rarely comes, because the children acquire the knowledge in other ways.

Therefore, let parents say what they will, the vast majority of intelligent children are as curious over these as over all other matters; and the former have only themselves to blame when their own flesh and blood dare not come to them to ask for an explanation. What can there be shameful in God's work of creation? It is only when sin, in word, thought, or deed, enters through man that man feels the existence of shame. "To the pure all things are pure"; and the reproductive instinct is a natural law unto all living things. The degradation to which this instinct can be brought is quite another question, and must not be confounded with it. By implanting in children clear and simple thoughts on this great law, and by very gradually causing their minds to distinguish between this natural instinct of every human being and the abuse of the instinct, mothers are preparing a shield of defence for their children which will do yeoman service in keeping them "pure and unspotted from the world."

There can be no comparison between this shield so acquired and the flimsy one of ignorance (by no means always innocent) with which indelicate, or at any rate unintelligent, mothers prefer to surround their children. All that is old-fashioned is not good, although much undoubtedly is ; and this old-fashioned and still widely-prevailing idea of keeping children, and even young women, ignorant on these matters is a particularly blind policy in these days.

As the child grows older, and goes to school, it seems inexplicable that the preparation for the future, with its probable duties, demands, and responsibilities, should not be given the highest seat of honour in the ordinary curriculum of school-life, and that the present invariably taught and so-called essential subjects should not be relegated to their proper position of secondary importance. Little pertaining to ordinary hygiene is taught to the average youth of either sex, and everything concerning sexual knowledge and understanding is conspicuous by its absence, being, perhaps, all the more a secret matter for speculation because it is so studiously shunned, so desperately shied at by those in authority. One writer says, talking of woman generally : " Her whole education is nothing but a concealment of the woman from herself. The mother hides from her little daughter the girl within the child. The school hides from the growing girl the woman within the maiden. Formerly

maidenhood was considered a mystery, now it is a mystification. . . . In this day of benevolent humanity and saving education she must, of all things, know the least of that which she instinctively understands ; the great human and educational problem of all girls' schools is the rearing of women to sexlessness." <sup>1</sup> It must be admitted that there is much truth in this sweeping statement.

With simple matters of living rightly explained and understood, it is easy to strengthen in the interested child that instinctive modesty which underlies the habit of right behaviour towards the other sex. A boy's inherent chivalry is aroused, not deadened or lowered, when he realises something of the meaning of womanhood, of the reverence due to maternity. When he perceives, however vaguely, the elements of manhood—how wonderfully his body is made, with what royal possibilities in the service of others his strength is endowed, to what untold power he can develop his will, and through it and God's grace to what heights he can guide his spirit—he learns to appreciate and to develop such precious and increasingly precious possessions.

A girl, too, learns much from such little lessons on life ; she learns to realise that her instinct of modesty is her most precious means of self-defence and of self-control. It develops her intuition, and in everyday life it guides her,

<sup>1</sup> Laura Marholm.

if she will but listen to it, in her general conduct towards the other sex. The dignity of womanhood makes itself apparent, and sometimes something stirring within her reminds her of a day that will come when she will desire to give herself, her best self, wholly and solely to the husband of her choice. And she does not wish to lessen, nor to allow others to lessen, the value of that gift beforehand. She grows accustomed to the natural facts and conditions of life, and is prevented from drifting in a haphazard fashion to womanhood and probable motherhood. Her knowledge is thus acquired gradually, and altogether in a better manner than is possible if left to be learned accidentally, or if in after-years she is suddenly surprised, probably beyond appreciation, by the discovery of its existence.

A flower produces seeds, from which spring fresh flowers. A bird builds her nest and lays her egg in it, and the warmth of her body in time develops the spark of life which has been implanted within the egg. Thus can a mother, step by step, teach her child, until she tells it simply that it, too, was once inside a tiny egg, but that it could not be seen because God kept it safely inside a tiny room in its mother's body. It stayed in this tiny room, and the mother carried it about with her so that no harm should come to it, until it was strong and plump and big enough to live alone. Then out into the world it came through a special little way of

its own, and rested at last in its mother's arms, where she could see it and kiss it. Then can be shown, later on, the way in which the spark of life came inside the egg in that tiny room: the father's share in his baby's life. From this it is but a few steps to the explanation of the necessity of living healthily—of taking proper care of the mind and body—and of the inevitableness of heredity. Finally come the little lessons on the meaning and expression of love—love of parents, of children, of husbands and wives, and that "wide love for all" which kindles all true-loving hearts, and causes them to shed abroad something of the radiance of that Love Divine which created them.

"Until these subjects are openly put before children and young people, with some degree of intelligent and sympathetic handling, it can scarcely be expected that anything but the utmost confusion, in mind and in morals, should reign in matters of sex. That we should leave our children to pick up their information about the most sacred, the most profound and vital, of all human functions, from the mere gutter, and learn to know it first from the lips of ignorance and vice, seems almost incredible, and certainly indicates the deeply-rooted unbelief and uncleanness of our own thoughts. Yet a child at the age of puberty, with the unfolding of its far-down emotional and sexual nature, is eminently capable of the most sensitive, affectional, and serene appreciation of what sex

means (generally more so, as things are to-day, than its worldling parent or guardian) : and can absorb the teaching, if sympathetically given, without any shock or disturbance to its sense of shame—that sense which is so natural and valuable a safeguard of early youth. To teach the child first, quite openly, its physical relation to its own mother, its long indwelling in her body, and the deep and sacred bond of tenderness between mother and child in consequence ; then, after a time, to explain the relation of fatherhood, and how the love of the parents for each other was the cause of its own (the child's) existence : these things are easy and natural—at least, they are so to the young mind—and excite in it no surprise or sense of unfitness, but only gratitude and a kind of tender wonderment. Then, later on, as the special sexual needs and desires develop, to instruct the girl or boy in the further details of the matter, and the care and right conduct of her or his own sexual nature ; on the meaning and the dangers of solitary indulgence—if this habit has been contracted ; on the need of self-control and the presence of affection in all relations with others, and (without undue asceticism) on the possibility of deflecting physical desire, to some degree, into affectional and emotional channels, and the great gain so resulting ; all these are things which an ordinary youth of either sex will easily understand and appreciate, and which may be of priceless value,



saving such an one from years of struggle in foul morasses, and waste of precious life-strength." <sup>1</sup>

"It was not without much anxiety that I took the first step on a road I intended to explore alone. Chance favoured me. I was in Java, and amongst my servants was a dressmaker, married to the groom. This woman had a dear little baby with a velvety brown skin and bright black eyes, the admiration of my little daughter, whom I took with me to see mother and child when the baby was a few days old. While she admired and petted it wonderingly, I said to her : 'This pretty little baby came out of Djahid like the beautiful butterfly came out of the chrysalis ; it lay close to Djahid's heart ; she made it, and kept it there till it grew. She loved it so much that she made it grow.' Lilly looked at me with her large, intelligent eyes in astonishment. 'Djahid is very happy to have this pretty baby. Djahid's blood made it strong while it lay close to her heart ; now Djahid will give it milk and make it strong, till it will grow as big as my Lilly. It made Djahid ill and made her suffer when it was born ; but she soon got well, and she is so glad.' Lilly listened, very much interested ; and when she got home she told her father the story, forgetting nothing. But beyond that she did not refer again to the matter, and soon forgot all

<sup>1</sup> This and the quotation following it are from "Love's Coming of Age," by permission of Mr. Edward Carpenter.

about it. The birth of Djahid's second baby gave me the opportunity of repeating the little lesson. This time she asked some questions. I explained many things to the eager little listener very simply, and told her that the mother kept the child within her, and took great care of it until it was old enough to endure the changes of temperature, &c., and showed her how a mother's joy and love made her forget her pain. The little creature, suddenly remembering that she must have given *her* mother pain, kissed me tenderly. That was a flower of love and gratitude, which it was my happiness to see develop on the fruitful soil of truth. . . . I analysed a flower ; I pointed out to her the beauty of colouring, the gracefulness of shape, the tender shades, the difference between the parts composing the flowers. Gradually I told her what these parts were called. I showed her the pollen, which clung like a beautiful golden powder to her little rosy fingers. I showed her, through the microscope, that this beautiful powder was composed of an infinite number of small grains. I made her examine the pistil more closely, and I showed her, at the end of the tube, the ovary, which I called a 'little house full of very tiny children.' I showed her the pollen glued to the pistil, and I told her that when the pollen of one flower, carried away by the wind, or by the insects, fell on the pistil of another flower, the small grains died and a tiny drop of moisture passed through the



tube and entered into the little house where the very tiny children dwelt ; that these tiny children were like small eggs, that in each small egg there was an almost invisible opening through which a little of the small drop passed ; that when this drop of pollen mixed with some other wonderful power in the ovary, that both joined together to give life, and the eggs developed and became grains or fruit. I have shown her flowers which had only a pistil, and others which had only stamens. I said to her, smiling, that the pistils were like little mothers, and the stamens like little fathers of the fruit. . . . Thus I sowed in this innocent heart and searching mind the seeds of that delicate science, which degenerates into obscenity if the mother, through false shame, leaves the instruction of her child to its schoolfellows. Let my little girl ask me, if she likes, the much dreaded question ; I will only have to remind her of the botany lessons, simply adding : ‘The same thing happens to human beings, with this difference—that what is done unconsciously by the plants is done consciously by us ; that in a properly arranged society one only unites one’s self to the person one loves.’ ” (Translated from “*La Revendication des Droits Féminins*,” p. 237, *Shafts*, April, 1894.)



PART II

THE WOMAN AS MAID



## CHAPTER II

### MENSTRUATION

"All events turn out justly ; and if you observe nicely, you will not only perceive a connection between causes and effects, but a sovereign distribution of justice, which presides in the administration, and gives everything its Due."—MARCUS AURELIUS.

"The common problem,—yours,—mine,—every one's—  
Is—not to fancy what were fair in Life  
Provided it could be :—but, finding first  
What may be, then find how to make it fair  
Up to our means :—a very different thing!"

—BROWNING.

MENSTRUATION is the name given to the monthly discharge of blood and mucus from the uterus. Its origin is doubtful. Whether this particular periodical function is necessary, or whether it is merely a morbid habit, contracted and increased through ages of unhealthy living, is still a debatable question. In the severity with which it now commonly occurs, there seems little doubt that its condition is distinctly "out of the order of Nature," for it cannot be natural that this state should be the heavy burden into which it so frequently develops.

Treated as a natural function of the body, it should be as perfectly and as naturally carried through as any other function. In the thoroughly healthy woman—a being by no means common—it should be undoubtedly of little inconvenience and no pain.

Its essential connection with the production of ova or eggs from the ovaries, a process known as ovulation, is not proved ; however, since in ovulation the ova are ripened and discharged, and in menstruation the uterus is being prepared for the reception of these ova in case of impregnation, it can be generally concluded that the outward and visible sign of menstruation indicates the act of ovulation.

The periods or “courses” of menstruation take place in the average case every twenty-eight days, beginning about the age of fourteen years, and ceasing at the “change of life,” or “menopause,” which usually arises between the ages of forty-five and fifty. There are, of course, many exceptions to these rules, both as regards the ages of beginning and ending, and the number of days between and during the periods. Conditions of climate, of life, and of constitution have much to do with the regularity and manner of the function—although according to some authorities climatic effects are probably exaggerated: early marriages, for instance, being said to be the cause, rather than the result, of the early start of menstruation in warm climates. Certainly this function appears earlier

in tropical countries and later in very cold than in temperate ones.

As regards conditions of life and constitution, girls who live in towns, or who are of dark complexion, frequently begin menstruation earlier than country-bred or fair ones. It is sometimes said that the earlier the periods commence the sooner they end—and thus many women hold the belief that the more fortunate they are in beginning late, the longer they retain their youth—while, on the other hand, the usual opinion held is that “the earlier menstruation begins the longer it lasts, early menstruation indicating an excess of energy which continues during the whole child-bearing life.”<sup>1</sup> In girls brought up to a luxurious, sedentary, artificial style of existence this function frequently begins earlier and continues in a more irregular, painful manner than in girls of more active and simpler bred lives.

During each “period” the inner lining of the uterus is shed, and the distension and rupture of the congested walls and tissues chiefly accounts for the loss of blood, which varies considerably—from four to six ounces being the average amount. On the second and third days the loss is usually greater, becoming from that time gradually less. The average duration of the discharge is four days. The discharge itself should be little in quantity, and the amount of blood lost still less; but this proper state of

<sup>1</sup> Dr. Andrew Wilson.

things is, unhappily, seldom met with—thanks in a great degree to the prevailing excited and unhealthy habits of life generally. During pregnancy and nursing this function is usually suspended.

Menstruation shows that the change from childhood to maidenhood, from the age of infancy to that of puberty, has taken place ; that the organs of generation are undergoing a change, a great preparation, to fit them for their natural future work.

At this age of puberty, the stepping-stone between the child and the woman, many physical and mental changes may be noted. Amongst the former are the filling out and rounding of the body—the development of the breasts, the enlargement of the pelvis—and the formation and discharge of ova from the ovaries. Mental changes may be equally marked ; the girl becomes shy and quiet—to herself her life seems suddenly wider and coloured with romantic thoughts ; sometimes a decided aversion to, or perhaps a desire for the company of, the opposite sex possesses her. Her whole bearing grows more dignified and womanly ; to those around her, and to herself, she sometimes seems almost a different being. Now is the important time when she has much need of the right kind of care and instruction that a mother who is wise as well as loving, who is “fond,” but the reverse of “foolish,” will not fail to give her.

For some time before the first menstrual



period such symptoms of its approach as lassitude, pain and heat in the back, breasts, loins, and internal organs may be felt, frequently accompanied by slight sickness or giddiness. Rest during this first period is of very great importance, in order to assist the function in its right establishment. The same medical writer quoted above warns mothers that at these critical times all mental stress, all overwork of any kind, should be absolutely prohibited, since "menstruation is a function which, it should be clearly understood, means so much to the life of a girl that almost every organ of the body is affected by its onset."

Girls should be seriously warned of the need of taking intelligent care of themselves immediately before and after, as well as during, the time itself. During the time itself, horse-riding, cycling, or any violent exercise such as is entailed in most outdoor games, must cease; gentle exercise, on the other hand, may sometimes be more beneficial than otherwise. Possible chills, such as may result from standing on damp grass, or from cooling an overheated body too rapidly, should be guarded against, and an easy, open-air existence indulged in. Taking proper care of the body must by no means be allowed to degenerate into any species of coddling; a girl or woman who goes to morbid extremes over her health must be taken firmly and kindly in hand at once. Happily, the ordinary athletic, high-spirited girl

seldom errs in this direction, it being to the other extreme that she is liable to carry herself.

At the menstrual periods the uterus and surrounding parts are more or less enlarged, owing to the state of congestion present. Therefore tight clothing is even more injurious than it is uncomfortable. Indeed, tight-lacing at any time whatever is one of the most common causes of irregular and painful menstruation. To bathe the body thoroughly, particularly the genital organs, every day during the "period," is absolutely necessary for the sake of comfort, decency, and health; yet it is really astounding how many women there are who neglect this essential act of cleanliness!

Not only at these times, but at all times, it is necessary to attend honestly to the rules of health; otherwise, sooner or later—generally the former—those who treat their intricate bodies with little or no consideration must pay for it in ways they will heartily regret. So often this sad and inevitable result is the fault of the parents rather than of their offspring, because they do not sufficiently impress upon them the necessity of care.

In a fairly healthy life there is no cause for troubling over small irregularities in connection with menstruation, as matters will frequently right themselves. Serious disorders, however, call for immediate and proper attention. *Menstruation is a correct measure of the health of the girl or woman; it proves, by its mildness or*

*severity, her physical and nervous condition.* A certain amount of discomfort is nearly always experienced at these times, and the more unhealthy the female organs are the more pain will there be also. It is shocking to reflect on the large numbers of women who are acute sufferers during menstruation.

That women are said to have greater power of endurance, to bear pain better than men, is hardly to be wondered at, since to them generally falls the lion's share of it in this world, and since practice, presumably, makes perfect ! Nevertheless, however much it may be a woman's fate to endure in other ways, it rests with herself to a certain extent whether she makes the function of menstruation an easily carried burden or a periodically grievous affliction—to a certain extent only, because however much she may be, and to a very serious degree undoubtedly is, responsible for her descendants, she is in no way so for her ancestors. Also she is frequently unable to choose her own circumstances or surroundings, or, having chosen, to alter them. So that sometimes out of indifference, ignorance, or undiluted selfishness, and by no means rarely out of unselfishness and love for others, she sacrifices her own precious health. Whether the compensation is adequate is another question, depending entirely on the individual woman.

After marriage, after child-bearing particularly, menstrual pains and irregularities frequently become altogether better.

Menstruation in its unhealthy state may be :  
(1) painful, (2) profuse, (3) suppressed, or  
(4) irregular.

(1) *Painful menstruation* is caused by congested or inflamed conditions of the organs concerned, due to various reasons, such as chills, blood impurities, physical or mental overwork, exhaustion due to sexual abuse (including self-pollution or masturbation), hysteria, anæmia, or tight-lacing, or to some difficulty connected with the escape of the discharge from the uterus. The "period" is sometimes so excessively painful that its advent every month is awaited with apprehensive horror by the victim. Paroxysms of pain—of such similarity to those experienced at child-birth that they have been called miniature labours—are endured, accompanied sometimes by severe sickness and fainting fits.

The mode of procedure in this, as in all other irregularities or diseased conditions, is, of course, to discover the cause and remove that, and in any case to lead a life as unexhausting and healthy as is possible. Needless to say, tight clothing may not only be the cause but may aggravate this complaint, and, if it is persisted in, may lead to serious results. If the first day or two of a painful period can be spent in bed, or at any rate in resting in a horizontal position, so much the better.

During the attacks of pain a hot sitz-bath or hot applications over the seat of pain and at the back sometimes gives instant relief. The

cold-water treatment is advocated by many people ; certainly the once popular idea of rigorously shunning cold water, or even water of any temperature, during the periods is happily now more or less exploded, and many a woman has found untold relief in cold-water compresses or bandages well wrung out and placed round the hips, cold or tepid sponging of the spine, and even in short cool or cold sitz-baths. But let it be carefully borne in mind that this last treatment in particular, which has the sanction of many hydropathists, must never be overdone, but thoroughly within the reactive power of the individual, so that all chance of chill may be avoided. *Otherwise, the last state of the patient under treatment will be infinitely worse than the first.* In fact, the heroic measure of taking a cold sitz-bath should be only attempted by the average woman with the approval and instruction of her doctor.

How almost suicidal in the eyes of many of our grandmothers would have appeared even the mildest of water remedies ! Owing to the gentle and tranquil style in which we are led to believe so many of them passed their existence, they had surely less need of the consideration of remedies than so many of us, who are plunged more or less into the bustling, dusty rush of present-day existence.

Except in menstrual cases of severity—and even then merely as a last resource—drugs should be avoided ; for not only do they lose

their effect in time, but they weaken and injure the system, and the occasional use of them may degenerate into an all-powerful and ruinous habit. Drunkenness in a woman—a vice which is said to be on the increase—and the terrible morphia habit, can frequently be proved to have originated in the taking of gin or other alcoholic drink, and of drugs, during menstruation, *under the utterly mistaken impression that they do good*. They cannot do lasting good, because they do not remove the cause of the pain ; they merely hush it up for the time being—and not always that ; and sometimes they aggravate, rather than lessen, the evil.

When painful menstruation occurs in otherwise healthy women, and in spite of their living the healthiest of lives, a small operation is occasionally found successful.

(2) *Profuse menstruation*, when the flow is greater than usual, may be the consequence of disease and abuse of the sexual organs, liver or kidney troubles, anxiety of mind, and other things. A woman with too great an accumulation of fat may suffer from this morbid state. In the case of a married woman, an inconsiderate husband may be responsible for much of her ill-health, for the wretched invalidism—mental, it may be, as well as physical—to which she is reduced.

While the menstruation is excessive, it is best to lie down as much as possible in a horizontal position with the feet raised, and to keep the



mind, as well as the body, quiet. Heat-giving contrivances should rarely be resorted to. Cold-water compresses round the pelvic regions have a strengthening and soothing effect. A careful, non-stimulating diet must be taken, and a peaceful mind cultivated.

To strengthen the organs, great assistance may be rendered by taking every day *between* the "periods" cool or cold sitz-baths. The method of taking these is explained in Chapter XI. During these baths the abdomen should be gently sponged down with water, or this beneficial sponging down can take place without the actual sitz-bath. The use of cool or cold douches and proper walking exercise—also, of course, between the "periods"—are excellent aids. In all serious cases the assistance of a doctor is advisable, so that the real cause may be discovered.

(3) *Suppression of menstruation* may be due to any seriously diseased state of the system. It is also one of the commonest signs of pregnancy. In some of its causes a general swelling of the body and other frequently accompanying symptoms may be mistakenly ascribed to the condition of pregnancy. In the case of congenital absence of menstruation an operation is usually necessary.

Anæmia is a very common cause of the suppression or of the absence of menstruation, and one to which young growing women are much subject. By nutritious meals at frequent in-

tervals, by early hours and much fresh air, by keeping the mind calm and the body free from exhaustion, the quantity and quality of the blood will be found to improve gradually, and menstruation will be, sooner or later, rightly established. A tonic, generally containing iron, may be necessary ; but this is best prescribed by a doctor, so that he can at the same time counteract the constipating effects which iron produces—unless one of the forms already proportionately made up with an aperient can be obtained.

Anæmia is largely associated with chronic constipation, so this bad habit must be rigorously avoided. The use of medicine for the curing of constipation is by no means always necessary or desirable. Sometimes a course of cascara sagrada, or of some aperient mineral water, may be useful in establishing a regular habit. When possible, an enema should be used to inject hot, tepid, or cold water (with or without the addition of a little glycerine or soap) into the rectum. This is very easily managed, and is strengthening and cleansing at the same time. But active exercise, supplemented by massage if necessary, and combined with a diet containing much fruit—stewed fruit especially—coarse brown bread, &c., is the best preventive of all. Massage, or merely the brisk rubbing of the abdomen in a circle with a little olive-oil as a lubricant, or a few body-bending exercises—also knee-raising ones—will often have a good effect.



Tuberculosis, leucorrhœa or whites, and brain fatigue are other causes of suppression. The first requires proper diagnosing and immediate treatment by a doctor ; the second, leucorrhœa, a very common complaint, can be gradually cured by strengthening the internal organs by cold-water applications and by injections into the vagina, by correcting general debility and paying attention to the ordinary rules of health. Brain-fatigue, or overstudy, in the case of young girls, is generally due to ignorant or negligent parents who desire, or at any rate allow, their daughters to "cram" for examinations at the very time when their energy and strength ought to be in readiness for the inevitable demands made on them by the important physical changes taking place. In the worrying anxiety of competition, coming as it most unhappily and frequently does in even very young lives, the strength is not only exhausted, but overstrained, so that some collapse is bound to occur sooner or later. "It is this spirit of emulation, with its attendant alternation of worry and hope, that causes so many of the acquired nervous disorders of the adult, and which hence is obviously much more potent for evil in the child."<sup>1</sup> This cause is one of frequent occurrence, and it has been known to delay menstruation for years beyond its usual and natural commencement, to the decided detriment of the health of the girl at the

<sup>1</sup> Dr. E. S. Talbot in "Degeneracy."

time itself and sometimes in her after-life as well.

When the period fails to appear occasionally at its usual time, or when the flow ceases abruptly in the middle of its course through chill or shock, a hot sitz-bath is often effective in bringing it on again. Many of the forms of medicine sold for this purpose, unless professionally ordered, may do more harm than good.

(4) *Irregularity in the appearance of the menstrual flow* is very usual when it first begins, and it may continue so for a year or two, finally settling down to the monthly or twenty-eight-day period in the average case. Sometimes the period may be found occurring all through life at intervals as short as three weeks, or as long as five, but such cases are exceptional. When occurring at shorter intervals than is usually the case it is frequently a sign of debility, and a tonic in the shape of a change of air or medicine may prove serviceable in bracing up the system ; or it may be a sign of overfed and excited conditions of living. In growing girls menstruation may cease for a few months from no other cause than that of the natural physical condition they are in.

When menstruation is scanty, or very slight in quantity, it may be owing to a natural state of health, or, on the other hand, it may be caused by constitutional weakness or bloodlessness, or by serious inflammation of the uterus. When brought about by these disorders great lan-

guor and morbid spirits are occasional accompaniments, and proper advice is desirable and may be necessary.

It is an erroneous idea that the appearance of menstruation coincides necessarily with the beginning of the child-bearing stage—that, when menstruation occurs, it is a sign that the girl is capable of becoming a mother—for it is possible for her to bear a child before she menstruates. And, on the other hand, she is not really sufficiently developed and formed physically for this function for years after the average menstrual beginning. At such an early age the double work of self-development and the development of her child could not but have a deteriorating effect on both lives.

“Health is merely applied common sense.”<sup>1</sup> Therefore, when menstruation is anything more than a slight inconvenience, or when ill-health is suffered in any way whatsoever, common sense, when faced with the reason why, should be able to solve the question and banish, or at least materially lessen, the disease.

If Nature is outraged in any way she seldom forgets it. When youth is to the fore, when the spring of life bubbles fresh in the veins, her gentle reminders may be laughed at—pain is the chief of them, and by no means always gentle—her very existence may be ignored. But there comes a time when the law of compensation is carried out, when sometimes whole years

<sup>1</sup> Dr. Schofield.

out of short lives must be spent in enduring or trying to cure habits and diseases of mind and body which, by the exercise of proper knowledge and control, might to a very great extent have been prevented. Too often, also, the punishment is passed on, and those to come are handicapped before they are born.

## CHAPTER III

### THE REPRODUCTIVE ORGANS

"The passions of mankind are partly protective, partly beneficent, like the chaff and grain of the corn, but none without their use, none without nobleness when seen in balanced unity with the rest of the spirit they are charged to defend. The passions of which the end is the continuance of the race, the indignation which is to arm it against injustice or strengthen it to resist wanton injury, and the fear which lies at the root of prudence, reverence, and awe, are all honourable and beautiful so long as man is regarded in his relations to the existing world."—RUSKIN.

THERE are three cavities contained in that part of the human body known as the trunk.

(1) The upper—the chest or thorax, containing the lungs and heart.

(2) The middle—the abdomen, containing the stomach, intestines, liver, kidneys, pancreas, and spleen.

(3) The lower—the pelvis, strongly made of bone, and able to support the weight of the trunk. Here are situated the bladder, rectum, and most of the generative organs.

The female pelvis differs from the male in

being of less depth, with lighter and slenderer bones. Also it is of greater width, so as to allow of the growth and birth of a baby, so as to act as a mother's first cradle for her children.

The male organs of generation consist of the testicles, the vas deferens, the seminal vesicles, the prostate gland, the penis, and various appendages. Most of these are in pairs, one on each side of the central line of the body. The testicles are kidney-shaped glands, enveloped in a skin called the scrotum. Their function is to secrete the semen, an albuminous, viscid fluid which, under a microscope, can be seen to contain myriads of rapidly moving elongated bodies known as spermatozoa, any single one of which, coming in contact with the female ovum, is sufficient to fertilise it. The penis contains the urethra, and conveys the semen from the testicles; in particular phases of the nervous system the erectile tissue contained in it becomes filled with blood and distended.

The principal female generative organs are the ovaries, uterus or womb, Fallopian tubes or oviducts, and vagina. Of these, the ovaries—two small glands corresponding in size, shape, and function to the male testicles—lie one on either side of the uterus, to which they are connected by the oviducts. In these two small glands are developed the ova or eggs, and as each one of them is matured it bursts the little sac in which it grew and passes out of the ovary through the oviduct to the uterus and

vagina. The two oviducts—or Fallopian tubes—extend each from the upper part of the uterus to an ovary ; they are each about three inches in length, and their function consists in conveying the ripe eggs or ova through their narrow passages to the uterus. Situated centrally in the pelvis, between the bladder in front and the rectum behind, is the uterus or womb. This is a pear-shaped muscular organ, with an average length of three inches and a breadth of one and a half in its non-pregnant state. The lower end of it, known as the mouth or cervix, protrudes into the vagina, while each of its upper extremities is penetrated by a Fallopian tube.

The uterus is a flexible body, accommodating itself to the conditions of the surrounding organs, and capable of enormous expansion and strength. Connecting it with the external organs is the vagina, a membranous passage, but not an open one, since its walls are in contact. So narrow may this passage be at first that a small syringe can hardly be admitted, and yet so muscular and elastic can it become that it will stretch to admit of the passage of a fully developed babe. Before the age of puberty it is small and undeveloped, but from this period it gradually reaches the adult size.

Before marriage there may be present at the orifice of the vagina a thin fold of mucous membrane known as the hymen. This fold sometimes completely closes the entrance to the



vagina, and although generally more or less easily broken, it can be in very rare cases of so tough a nature that a slight operation may be necessary. When this hymen is present it is usually pierced by one or more holes, which enlarge with little difficulty ; very frequently it is entirely absent. Its presence or absence is now recognised as of very little use as a sign of chastity, since its rupture is easily brought about by exercise, games, bathing, the use of a syringe, and other causes ; while it is possible for it to be present even after coition has been effected, since it is capable in a few cases of folding and stretching rather than of actually rupturing.

The external generative organs consist of the clitoris—a small tubercle situated above the urethra, and the seat of highly developed nerve sensation—and the labia majora and minora, which serve as a protection to the vagina and urethra. The breasts contain the mammary glands, in which is secreted after conception the milk for the baby's nourishment. They are always in much sympathy with the generative organs during pregnancy, and to a variable extent during the menstrual periods also.



PART III

THE WOMAN AS WIFE



## CHAPTER IV

### THE MARRIAGE RELATION

"I took you—how could I otherwise?  
For a world to me, and more;  
For all, love greatens and glorifies  
Till God's aglow, to the loving eyes,  
In what was mere earth before."

—BROWNING.

"Ah, wasteful woman!—she who may  
On her sweet self set her own price,  
Knowing he cannot choose but pay—  
How has she cheapen'd Paradise!  
How given for nought her priceless gift,  
How spoiled the bread and spill'd the wine,  
Which, spent with due respective thrift,  
Had made brutes men, and men divine!"

—COVENTRY PATMORE.

"The Lord let the house of a brute to the soul of a man,  
And the man said, 'Am I your debtor?'  
And the Lord—'Not yet: but make it as clean as you can,  
And then I will let you a better.'"

—From a poem entitled "BY AN EVOLUTIONIST."

ALTHOUGH marriage is no longer regarded by women as the sole aim of their existence, although they have learnt that it is very possible, and in some cases preferable, to be happy

and useful and beloved in a free, single life, it is, all the same, as true as it is natural that the mysterious fascination of the sex-instinct, with all that pertains thereto, with the blessings and bonds of wifehood and motherhood, is in no danger of becoming extinct among them.

Young men and maidens still find their pleasure in courting and being courted, their fancies lightly turn "to thoughts of love" from Maytime to harvest and to Maytime again. That subtle magnetic instinct, with its depth and simplicity of meaning, is as natural and enchanting a link between the two sexes to-day as it ever was. Human nature, in fact—as in fancy—never grows any older.

In every healthy young man the instinct of sex is present, controlled or allowed to run riot according to his strength of self-control and elevation of mind. Some young women possess it in as great, and in rare cases even a greater degree ; but in the majority of average healthy women before marriage it lies in a more or less dormant condition, and occasionally is altogether absent. And dormant things suddenly aroused require an understanding, forewarned and so forearmed, to control and guide them.

Therefore, considering the knowledge and strength of this instinct in the male sex, it is most blameworthy of those in authority when they allow young women to grow up and to enter the state of matrimony with no understanding on the subject. They should remember that it

is possible for reality to fall short of ideality. Consciously or unconsciously, the possibility of the one may be entirely overlooked in contemplation of the other ; and sudden knowledge of a possible depth between, coupled with ignorance as to the manner of bridging it, may come to those unprepared with a shock of misunderstanding which takes much uprooting. Marriage has its own true joys, but, on the other hand, it has its peculiar trials and weaknesses which demand a certain amount of knowledge of the limits and capabilities of human nature before they can be successfully coped with. And that *laissez-faire* spirit, that state of mind which hopes for the best but does nothing to assist its arrival, which casually or despondingly accepts that which need not be inevitable, but which requires too much of an effort to fight against, is always a wrong one. It has no saving merit of strength even, but, cowardlike, leaves the consequences of its avoidable incompetency to fall on others.

It is only when love, the "purifying passion of the soul," is based on sympathy and respect that it is sufficiently fortified to weather all storms within and without the bar. When these two foundations vanish, love may be kind and suffer long, but, being human, it has limits to its endurance. Sometimes a strong attachment is seen between those of natures so opposed to each other that happiness together would seem impossible ; yet when, in spite of their diversity

—or it may be, in part, because of it—they do find happiness, the reason probably lies in the fact that though in the non-essentials of life they differ, yet in the essentials, in all that really matters, they sympathise. They see the same view, but from different standpoints. This is the bond of friendship, which becomes in its turn a most powerful welder of love.

By all chivalrous and intelligent men, and certainly by every woman, it is acknowledged as intolerably unjust that there should be one law of morality for woman and quite another for man—that for one slip from the accepted path of virtue she is condemned more or less to long years of scandal and opprobrium, while the path of his own desires is the only accepted one for him. He may seek and obtain his pleasure as often as he pleases, but always at the expense of her sex. Doubtless the hereditary tendencies of bygone centuries, during which his ancestors lived as polygamous animals, are still supposed to be too much for him to get the better of. Although he has overcome much that needed overcoming, although he has mastered other undesirable tendencies and developed his spiritual life, in this particular material side of him he excuses himself where there can be no thought of excuse—save on the grounds of feeble-mindedness. While it is imperative to an average-minded man that his bride be above reproach, he himself may be corrupt to the core, without any exception being taken

to such a scandalously unjust state of things. That he may be the cause of moral destruction to other women so long as the woman he marries is spotless is, to an unbiassed mind, a conclusion as illogical as it is base. His passions are perhaps stronger, but so surely is his power of self-control proportionately greater if he be man enough to exercise it.

By their openly shown preference for healthy, self-controlled, and, as far as their intuition tells them, clean-living men, and by a greater display of broad-mindedness and wise charity to unfortunates of their own sex, women can do much to help in removing this utterly false, despicable line which separates, and so weakens, the moral understanding of both sexes. What is right for the one is right for the other, since good and bad, love and hatred, can never balance each other—whatever their disguise—on the true scales of morality.

As well as the spiritual union of the true marriage, there is also the physical union. A man and woman filled with love for each other seek—though the aim itself may be unconscious—to create some living symbol of their love, and are thus drawn into union by the natural physical means provided. For conjugal love, although first born in the soul as an inspiration, and then entering the heart as a passion, finally reaches the body as a desire for unity. It “is restricted to one only of the sex and removed from all others, for it is a love of

the spirit and thence of the body, and not of the body and thence of the spirit.”<sup>1</sup> This material or physical side of it, when properly treated from the beginning, can be so ennobled, so elevated, that it becomes, as it were, the natural outcome of this human love. On the other hand, it can be so improperly treated from the beginning that appalling disease of mind as well as of body may result. Improper treatment may be due to want of thought or sheer ignorance in some cases, and to want of heart and to gross selfishness in others.

On all sexual matters the decision should rest on the justly and considerately formed judgment of the wife. Of all her rights there is surely none so evident as this personal right; and if she be healthy enough to possess the unperverted instinct of sex, or wise enough to understand and sympathise with its possession by others, she will never be unnecessarily churlish over this privilege, while, on the other hand, she will take care that the boundary of moderation is not overstepped. Love can so easily be vulgarised, familiarity so frequently breed indifference as well as contempt, and indulgence so readily sink to satiety, that it behoves every woman to see that she herself be in no way blameworthy in the bringing about of such a catastrophe. By acting in a tactful and intelligent way over these matters, she is enhancing rather than lessening her value in her husband's

<sup>1</sup> Swedenborg.



eyes and preserving her self-respect in her own.

That there exist cases in which the just desires and needs of wives count for nothing is a sad fact. Unfortunately, each individual case is seldom known to any one except those concerned, and so retribution, although beyond doubt it comes surely, may come slowly in this world. When enforced maternity occurs again and again, in the face of all that is right and proper, it becomes impossible sometimes that such a condition be allowed to continue, and the benefit resulting from the advice of a capable relation or friend may be well worth the cost of the effort to break silence.

On the question of what constitutes moderation each case must be a law unto itself, guided by its own healthy, instinctive understanding. Some hold the theory that intercourse is solely to be permitted for the purpose of procreation, while there are those who actually and most wrongly imagine that it is a marital right which can be enforced as often as they please. However, without going to extremes, it must be remembered that what may not be injurious in one case may be extremely so in another ; so much depends on the health of each person concerned, on his or her amount of superfluous energy. There is no doubt that immoderation is by no means uncommon even among people otherwise intelligent. Taking into consideration the amount of vitality lost thus, and the average

present-day health, it follows that fresh vitality cannot in the majority of cases be spared again for such expenditure under several days, or, safer still, under the week.

Luxurious living, rich, varied diet, wines, theatre-going, novel-reading, idleness—everything which heats the blood and stirs the imagination may lead to excess. So those who for various reasons find it imperative, or at any rate highly desirable, to be moderate, or even entirely continent, in their sexual requirements will find their way made much easier if they adopt a healthy, unpampered, and well-employed mode of existence.

It is certain that there is excess or immoderation if intercourse be followed by extreme lassitude, lessening in feelings of respect or affection for the other, depression, irritability, or any other symptom indicating lowered vitality. Excess wastes so much life that it brings on premature old age ; for the nervous force, the vital energy expended, is so enormous that only the surplus quantity—seeing how much is taken up with the daily round of life—can possibly be spared without serious detriment to health.

Entire continence or sexual separation, on the other hand, between husband and wife is liable to cause indifference and irritability, and with some women—and particularly men—may lead to unfaithfulness. Unless there be some extraordinarily good reason for it, it is unnatural and unfair ; and those women who insist on it

should not have undertaken the responsibility of marriage. To many wives separation is no virtue, since the reverse is without temptation for them ; they are, or profess to be, totally apathetic in all sexual matters. This is an unpraiseworthy condition, for it shows a defect in their natural physical health. Frequently, when the sex-feeling is non-existent, or merely dormant or undeveloped, health and happy experience will effect a remedy. On the other hand, immoderation will gradually destroy it if already present, or hinder its development if it be merely dormant.

The instinct of sex, properly controlled and subordinated, should be the rightful physical property of every human being. For it must neither be forgotten nor ignored that, as well as the mind and the spirit working behind and through the mind, there is that physical clothing, that human temple of both, the body itself, to be rightly developed and used.

The beautiful in religion or art is brought about with the necessary assistance of material mundane things. Mere words can be moulded into poetry, marble into sculpture, hand-made instruments can be made to proclaim the glory of music, the human figure can express beauty, while the gifted or noble mind behind such means and behind all noble deeds inhabits the brain, and uses the nerves and the muscles as its servants. And so the whole body, while treated with the respect which is due to its

natural needs and conditions, can at the same time be made the expression of the love of the spirit which dwells in and possesses and shines through it. Human life is always threefold—*physical*, as well as *mental* and *spiritual*; therefore, he or she in whom any one of these three necessary and important parts is undeveloped is defective, and falls short of the perfect whole. “It is the all-round, fully-developed we want—not the ethereal, pale-blooded man and woman, but the man and woman of flesh and blood, for action and service here and now—the man and woman strong and powerful, with all the faculties and functions fully unfolded and used, all in a royal and bounding condition, but all rightly subordinated. The man and the woman of this kind, with the imperial hand of mastery upon all—standing, moving thus like a king, nay, like a very God—such is the man and such is the woman of power. Such is the ideal life: anything else is one-sided, and falls short of it.”<sup>1</sup>

“All rightly subordinated,” the spirit guides the mind and, through it, the body. And thus in the ordering of life the body is the symbol, the deeds the expression, of the immortal spirit within.

<sup>1</sup> Ralph Waldo Trine.

## CHAPTER V

### THE QUESTION OF PARENTHOOD

"It is most certain that woman's most womanly affections are the likeness of affections which have their pure and perfect foundation in the nature of God."—PULSFORD.

"With full heart

I look upon thee, for thou art the same  
That wert a promise to me ere thy birth,  
And all thy life hast been my daily joy.

Even to the uttermost I have been to thee  
A kind and good father : and herein  
I but repay a gift which I myself  
Received at others' hands ; for, though now old  
Beyond the common life of man, I still  
Remember them who loved me in my youth.  
Both of them sleep together."

—WORDSWORTH.

THE relation of intercourse to conception is a problem that each husband and wife must solve for themselves. Much has been written in favour of the ideal belief that simply for the sake of the one is the other allowable, that procreation solely and continuously ought to be the aim of married life. Naturally this was and is the

fundamental purpose of the sex-instinct and act. The pill, as it were, of reproduction is gilded so wisely in order that it may create a desire to swallow it, and thus Nature's work of racial preservation is carried on. However, in practical life as it now is, the majority of married people will credit and consent to no such ideal belief. They are like children greedy for sweets. Sometimes they childishly make themselves ill, at other times they are wise enough to realise the necessity of moderation.

Men find it impossible to believe that they possess an instinct of sex which is to be used only for the purpose of reproduction. Naturally many do not wish to be merely reproductive beings, while many others are too much accustomed to unnaturally abusing the sex-instinct to wish to believe that it has limitations. From their present standpoint, then, there are few who will agree with the idea that, after conception has taken place, intercourse shall not occur during the eighteen months of pregnancy and lactation, and that when it is again allowable after this period, and conception again occurs, another eighteen months must elapse before intercourse, and so on. And trebly hard would such an arrangement be for the woman, who, in order to perform her part, to adequately fulfil "her sublime function," would thus be bound to spend all her capable married existence in bearing one child after another. Although to some women this employment of their years

might constitute no hardship, might even prove to be their choice, to the vast majority it would mean more or less intolerable slavery.

Although the instinct of reproduction is a natural part of healthy life, it is neither natural nor healthy if uncontrolled, or if choked to death. It needs always to be regulated by the intelligence of those concerned. If they do not possess sufficient intelligence, they should seek or be given enlightenment without loss of time ; there is no time to waste ; life is too short and the consequences too serious for delay. In some cases the conditions of life are so crippled that it is only right that there should be no children. Disease or deformity can be so strongly set in the husband or wife that parentage becomes almost if not wholly a sin, for the children and children's children must run the risk of being born with some terrible blight on them. Happily many such cases of disease can be corrected, if taken in time, by healthy living and skilful medical aid.

The sex-instinct is checked, or altogether absent, only in unnatural or diseased states of body or of mind. That such disease of *body* occurs, there is ample proof in the case of those married people who long for children and yet to whom no children come. Often it is possible to alter this childless condition. That such disease of *mind* occurs is proved by the existence of husbands and wives who dislike the thought of having any children at all—men who will



actually not allow their wives to become mothers, or, more commonly and still more deplorably, wives who refuse, even at the wish of their husbands, to be hampered by the responsibilities of motherhood.

Their reasons are manifold ; in rare cases they may be good ones, but pure selfishness is the origin of most of them. Such women affirm that they have not the time to spare nor the strength to stand the physical strain, they have no desire for further worry or trouble, they see no possibility of providing for future expense, &c. The longing for little children is never allowed to pull at their narrow heart-strings, while the happy mother of several may incur their half-contemptuous and wholly mistaken pity, being looked upon sometimes as a good nurse with a disposition akin to that of a placid cow, but otherwise incapable intellectually and seriously handicapped in the easy enjoyment of life.

It is rather a matter for condolence than for congratulation when a marriage proves by choice (and not by incapability) childless. Husband and wife, unless very true-hearted, may become dissatisfied, aimless, and self-indulgent, and drift gradually—perhaps imperceptibly—apart. The woman especially, in mind and body, may be injuriously affected. She will throw her energy into whatever is available, or appeals to her. With society, sport, charity, politics, literary work, the care of dumb animals, and other occupations—all excellent in their proper place—



she will seek to lull, or satisfy unconsciously or otherwise, her maternal instinct. And thus will be showered on good, bad, and indifferent objects the attention and love to which her own children should have had first claim. What a noble mother may have been wasted, what splendid children may thus have been lost to their country !

The subject is, of course, extremely hackneyed ; but the writer cannot refrain from thinking of more than one so-called " society " woman, who bear honoured names, and who, in spite of their husbands' desires for children, refuse to attempt to fulfil these desires ; who spend their lives in an everlasting round of gaiety, and who apparently delude themselves into believing that in this form of existence lies the purpose of their creation. But surely even to the one of lowest value amongst them must come the idea sometimes that life is more than a game, that the possession of her husband's love and respect, the devotion of children, and the sincere attachment of her friends (to say nothing of her own self-respect, without which no woman is worthy to be so called), is a reward which is not easily won, *and which is still less easily retained.*

Sometimes it happens that there are children in the home, and yet this detached life of selfish gaiety is persisted in by the mother. The little ones hardly know her, being left to the care and training of hired nurses. Sometimes she

makes a point of seeing them at a certain hour every day, in the same way that she makes a point of inspecting her stables or interviewing her housekeeper. Quite unconcernedly she robs her children of their natural right to her love and protection. There are cases where the mother has been even charitably attending to the needs of others outside her own neglected family, heedless of the fact that charity, like the lesser virtues, begins at home.

The hope of sons and daughters of their own, which comes, happily, to the majority of married people, is a trebly rooted one. It springs from the pleasure anticipated of watching and training these small replicas of themselves in the way they should go, from the wish to possess them as comforts in their later years, and from that deep-rooted feeling of protecting, responsible possession, the essence of their own beings, the instinctive fulfilment of the laws of creation.

Woman is physically incomplete until she has experienced the agony and ecstasy of motherhood ; a rose-tree has not reached perfection until it has borne its first beautiful bud. The living picture of a young mother with her babe at her breast is, in the eyes of all good men, the most sacredly beautiful that God has ever painted.

A new little life entrusted to its parents' care gives them a fuller and more unselfish interest—not only in their own but in other people's lives ; for its sake they make efforts which

otherwise would have remained untried. The wonder and love of it and for it draws them ever onward and upward, lest they themselves should, by any terrible means, be stumbling-blocks in its way. On prince and peasant alike weighs this burden of responsibility in the possession of children, and to each and all of them may come the joy abounding in parenthood. "The greatest happiness of all is one which any cottar may possess."<sup>1</sup>

Although from the same origin, there is yet a vast difference between the love of human beings and that of any of the lower animals. To its god MAN a dog will pay life-long affectionate homage, to its offspring it pays merely sufficient attention to equip them for the battle of life. A wolf one day risks her life for her cub, yet not many days later she attacks it savagely for the sake of a coveted morsel. In a short time her memory grows even shorter than that of her offspring, and she fails to recognise or acknowledge any relationship. In the care of her young, in her warm protection of them until they are capable of self-support, in her sharpened sagacity, she is but obeying that secret prompting, that instinct, the presence of which is necessary for the preservation of life. From this instinct in the animal, which evolves into intuition in mankind, from this "intelligence behind creative energy," there has gradually arisen love—love altruistic, as self-sacrificing as

<sup>1</sup> F. Greenwood.

it is enduring, and of the spirit immortal. After the genesis of humanity, with the earliest dawning rays of civilisation, it was first brought into the world by a human baby, a little child. "Till this appeared, Man's affection was non-existent; Woman's was frozen. The Man did not love the Woman; the Woman did not love the Man. But one day from its Mother's very heart, from a shrine which her husband never visited nor knew was there, which she herself dared scarce acknowledge, a Child drew forth the first fresh bud of a Love which was not passion, a Love which was not selfish, a Love which was an incense from its Maker, and whose fragrance from that hour went forth to sanctify the world. Later, long later, through the same tiny and unconscious intermediary, the father's soul was touched. And one day, in the love of a little child, Father and Mother met." <sup>1</sup>

It is a wonderful fact that those families which must struggle for their very existence are the most prolific, while others which are rising in the scale of well-living, of education, of wealth, idleness, cultivation, of higher civilisation—whichever it may be—find the power and the instinct of reproduction weakened and sometimes altogether absent. A working woman can find much truth and food for thought in this reflection—that cases of barrenness, of wretched health during menstruation and pregnancy, of dangerous confinements, are more often the lot of

<sup>1</sup> Henry Drummond.

her aristocratic sister than of herself. "A mean estate is not always condemned: nor the rich that is foolish to be had in admiration."<sup>1</sup>

It was estimated in America some years ago that, to keep the population on a moderate increase, each family should have not less than four children. In the British Isles the birth rate is much lower in the upper and middle classes than in the lower; which means that those who have the opportunity of being or of becoming healthy and wise are reproducing their kind in a greatly lessened degree than those others of toilful and sometimes of lowest criminal life, many of whom are worn out by producing big families "after *their* kind." In insanitary homes, often among debasing and overcrowded surroundings, what chance has this latter class of children, future men and women of England, of rising to be worthy citizens? Their predomination in increasing numbers, and the possible overwhelming results, presents a problem which becomes increasingly difficult to solve.

In some families, children, instead of being objects of mutual love, serve rather as bones of contention to the parents. When this unhappy condition exists, it is impossible for those outside the family to do more than advise and hope that the true interests of the children will receive the first attention. Husbands and wives lay down their own laws on this as on other subjects of domestic life, and work out or frus-

<sup>1</sup> Ecclesiasticus.

trate, according to individual merit, their own salvation.

As regards the size of a family, there are various points to be taken into consideration. Women possessing moderate families are usually exempt from certain diseases which sometimes attack childless women, and also from those to which women with many children may fall victims owing to the weakness resulting from a constant drain upon their vital powers. Moderation, the happy medium between the "falsehood of extremes," is the wisest course, and this word must suit itself to the individual family. That which is moderate for one is not necessarily so for all, for such weighty reasons as the health of each parent and the means of support—the father's capabilities as a breadwinner—cannot be lost sight of. With regard to the latter, it is true that the burden of responsibility has now been lightened by benevolent laws; yet, in spite of these, it is a man's duty to support and provide for his own family during the time the members of it are incapable of doing so for themselves. And in nothing so much as in child-bearing does it hold good that quality should come before quantity. When quantity takes precedence, be it in flowers, fruit, or in the human flowers and fruit—little children—quality is bound to suffer. Either way can be carried to extremes, so that there is but one child, for instance; but this is usually a mistake or a

misfortune on the parents' part, which they have been known to be the first to admit in after-years. Or perhaps there are, on the other hand, more in the family than can possibly be healthily produced or sustained. And in the struggle for existence, whether in plant or in animal life, the race is to the swift and the battle to the strong.



## CHAPTER VI

### NATURAL AND ARTIFICIAL CAUSES OF CHILDLESSNESS

“Do your duty, and do not trouble yourself, whether it is in the cold, or by a good fire, whether you are overwatched, or satisfied with sleep, whether you have a good word or a bad one, whether you are dying, or doing anything else, for this last must be done at one time or another. It is part of the business of life to leave it, and here too it suffices to manage the present well.”—MARCUS AURELIUS.

#### *Natural Causes.*

THE inability to have children is caused chiefly by *sterility*, or barrenness of the reproductive organs ; or by *impotency*, or lack of power to effect intercourse. Either may be the fault or misfortune of the husband, though more often sterility is due to some disorder of the female organs.

Impotency in men is sometimes due to physiological reasons, when some part of the generative organs is defective and so incapable of performing its office. But a commoner cause is sexual excess or abuse, which results in the collapse of the nervous mechanism of the reproductive



organs. This collapse of nerve may also be due to an accident, or to overwork and insufficient food. Worry and grief may cause it. A cure can be brought about in many cases by removing the apparent cause; by living a healthy, pure life, by giving Nature time and opportunity to repair the damage, matters will frequently right themselves.

Impotence in women is stated to be rare. It is due to some physiological cause, such as an obstruction in the vagina, perhaps the presence of an imperforate hymen. The vagina itself may be undeveloped, or its walls may have grown together.

Sterility in men is by no means as uncommon as is generally supposed, the wife often receiving far more than her share of responsibility for her childless condition. Catarrh of the bladder or urethra, diseased or wasted conditions of the testicles—such as are produced by tuberculosis, venereal disease, and sexual abuse—may result in unfertile spermatozoa. Those who suffer from latent gonorrhœa may find, even after the lapse of years and an apparent cure, that sterility in themselves has resulted, or that they have communicated some disease to their wives which has rendered them sterile. Sometimes the organs are apparently healthy, the spermatozoa fertile, and yet sterility exists.

Sterility in women may be due to some disorder of the uterus, such as displacement, tumour, or inflammation; or to some defect

in the ovaries or in the Fallopian tubes. Sometimes diseased conditions which result in sterility are brought on by sexual abuse and secret vice. There are cases in which the uterus and ovaries are absent altogether ; or either may be insufficiently developed ; or the ova may be unhealthy and incapable of fertilisation. Sterility may be the result of leucorrhœa or whites, which may kill the spermatozoa when they are deposited in the vagina. When this is the suspected cause, it can be relieved and sometimes cured by injections into the vagina of cool or quite cold water, which strengthens and cleanses the organs. Unhealthy, disordered menstruation, by showing the internal condition of affairs, may be an indirect cause of sterility.

In displacements or morbid conditions of the uterus a doctor can frequently effect a remedy. Such matters are always best attended to properly at once. And it must be remembered that in slight derangements of the uterus a woman need not necessarily feel ill or uncomfortable, and yet these may be serious enough to prevent conception. Sometimes the first occasion on which these little ailments are discovered is when the cause of sterility is being inquired into. Some doctors advocate the wearing of pessaries or other mechanical internal supports to keep the organs in their proper position ; others strongly disapprove of them on account of the irritation that the presence of a foreign body is liable to set up. In serious cases of

displacement an operation, having for its object the correct placing of the uterus, may be advisable. Sometimes there are constitutional causes which result in sterility, and which can frequently be corrected by living a healthy, open-air life. Occasionally it is quite impossible to discover any definite reason, so many and such little causes may account for it. Maintaining a horizontal position after impregnation, refraining from coughing or any spasmodic movement, and other little details, can be of service in inducing conception. Very violent exercise afterwards should be avoided, as this may loosen the already united germs from the lining of the uterus, and cause a miscarriage of only a few hours or days.

A woman is most susceptible to conception during the five days immediately before and the ten days after menstruation has taken place, so this point should be remembered by those who do not desire this result, and it is still more important to those who do.

It is said sometimes that at certain periods of the year, owing to some obscure state of the male or female element, the necessary conditions for fertilisation may be lacking.

Sometimes too frequent or careless intercourse may undo any favourable beginning by disturbing the uterus. Total abstinence from intercourse for some time has been known to produce a favourable result on the ova or on the organs, so that when it again takes place conception

has occurred. Sometimes very thin, more often very fat, women are unable to conceive. A change in the conditions of life—a complete change of air, of diet, of habits, of living generally—may cure sterility ; on the other hand, such a change is capable of causing sterility in cases where it did not previously exist.

The habit of taking alcohol or drugs is antagonistic to the state of pregnancy ; thus the increase of sterility among women is, by some writers on the subject, said to be caused by the increase of drunkenness among them. Age is another matter affecting sterility ; according to statistics, about thirty-three years of age is the most prolific one for women. (This figure, however, is dependent on age at marriage, and not on physiological conditions.)

Physical and temperamental inadaptation may be another cause of sterility, and very difficult, if not impossible, to alter. By temperamental inadaptation is meant a similarity between husband and wife in their temperaments and constitutions. “Issue follows the union of contraries,” not only in the lower animals, but in man and woman as well. This similarity may be visible in the shape of their faces or of their heads generally.

Sentiments and tastes may be dissimilar, and yet the temperaments may be fundamentally alike. “Innate sexual incompatibility,” want of affinity, magnetic repulsion, temperamental

inadaptation, social consanguinity—in whatever language this state is described, it still remains an undoubted cause of sterility, and one of all others which seems impossible to overcome.<sup>1</sup> Married to other mates, both husband and wife might have children, but as far as their own united life is concerned they must be content with the often happy makeshift of adoption, or with the companionship of each other.

### *Artificial Causes.*

Many of the artificial methods of prevention are liable to be as injurious as they are useless. There are various devices on the market, some of which are said to be efficacious and non-injurious. Withdrawal immediately before the ejaculation of the spermatozoa is one method, said to be unreliable and detrimental to health—unreliable because one's intentions are not always carried out in time, because "natural reflex action is often too quick for mental calculations and voluntary conduct"; and unhealthy on account of the probable jar and strain on the nerves, which would be liable to render a man irritable in disposition. Another measure of prevention is that by which a climax is avoided, but to most people this would be as

<sup>1</sup> For explanation and illustration of the four temperaments and of the right way of mixing them, those interested can read "Natural History of the Human Temperaments," by Dr. W. Boyd Powell, of Kentucky.

highly unsatisfactory as it is thoroughly injurious to the whole system.

The use of the vaginal syringe or douche immediately after intercourse seems to be the healthiest and most cleansing method, although by no means an infallible one. Sulphate of zinc, alum, or vinegar is sometimes added to the warm or tepid water which is to be injected.

After conception has once occurred, any method whatsoever of inducing a miscarriage is illegal and criminal. A baby, when it is born at the proper time, has already lived nine months ; during any part of this short period, then, if its destruction is sought, nothing more or less than wanton murder is being committed. To save the life of the mother is it alone allowable.

## CHAPTER VII

### IMPREGNATION AND GENERATION

“And I must work through months of toil,  
And years of cultivation,  
Upon my proper patch of soil  
To grow my own plantation.  
I’ll take the showers as they fall,  
I will not vex my bosom :  
Enough if at the end of all  
A little garden blossom.”

—TENNYSON.

“Nothing makes the soul so pure, so religious, as the endeavour to create something perfect ; for God is Perfection, and whoever strives for Perfection strives for something that is God-like.”—MICHAEL ANGELO.

To a woman who thinks at all, it is extremely interesting to be able to understand something of the marvellous process known as *gestation*, or the *generation* of human life—the beginning and the development of the unborn child. Not only is it natural that the subject should interest her, but the more she learns and discerns, the more fully does she realise the great importance of its teaching, the absolute necessity to her sex



of its careful study. How otherwise, when she is to become a mother, can she understand rightly her responsibility in the moral, mental, and physical growth of that hidden life, which is infused in its every cell by her own manner of living?

Impregnation is caused by the injection of the male semen or fluid into the female organs. If the healthy living male principle or spermatozoon—thousands of which may be present in the semen, and but one of which is sufficient for the purpose—meet an ovum they unite, and, in all normal cases, enter the uterus. Fertilisation has then occurred, the woman conceives, a new life is generated, and in due course brought into the world.

In a similar manner reproduction is carried out in the vegetable world, where, in the higher plants, the sexual organs are as distinct as are those in the animal world. Thus certain male plants bear no flowers; others produce merely sterile or unfertile ones. It is the female plants alone which produce fertile flowers, but the little egg or ovum from which each flower springs must first have been impregnated and fertilised by the male seed of reproduction. This "pollen," as the fine dust is called which contains the male principle, may be carried by wind, birds, or insects to the ovary of the female plant with which it unites.

Frequently the male and female organs are found on separate parts of the same plants,



as in the Indian corn, for example, where, unless the pollen from the "tassel" or male organ, situated at the top of the stalk, fall upon the "silk" or female organ, which is half-way up the stalk, there will be no corn. The walnut and oak are other examples of both sets of organs occurring on separate parts of the same plant. Sometimes the two sets of organs are combined in a single flower, forming a true hermaphrodite, in the same way that they are in some of the lower forms of animal life, such as the oyster, and in some varieties of snail and worm. In every form of life the perfect adaptability of male and female for the purpose of reproduction, for the preservation of species, is truly wonderful. And that which in plant-life is done unconsciously is done consciously in human life. When the two elements of human life are brought together by love, and for love's work and reward, the pre-natal life of the child, like that of the plant-seed, is begun ; thus impregnation is brought about, so simply and yet so marvellously. During the space of nine months a human being is formed and perfected. The baby grows in the peaceful security of the mother's body, warmed by the blood in her veins, shaped by her thoughts, built up out of her very life. The first bias or leaning to good or to evil has already been given to it at impregnation, through the healthy or unhealthy semen of the father and ovum of the mother. From henceforth it is chiefly and directly the mother

who has it in her hands to lessen or to strengthen this bias.

In the fertilised ovum, not larger than the one-hundred-and-twentieth of an inch, is embodied, then, the future man or woman, already marked to some extent by both parents in health and character. And to be born of sound, healthy parents is the greatest birthright of each human being, for "like begets like" in spirit, mind, and body.

Conception need not necessarily occur at the exact moment of intercourse ; it can only do so then if a spermatozoon should meet an ovum ready for impregnation. Otherwise, hours and even days may elapse before an ovum leaves the ovary, and, consequently, before fertilisation can take place. During this period of waiting, the spermatozoon, about the six-hundredth part of an inch in length, has the power of propelling itself forward to await the coming of the ovum. It can retain its vitality for many hours, and then finally, if no ovum makes its appearance, it perishes.

However, if an ovum (which is much bigger than a spermatozoon) is released from its ovary and meets the spermatozoon, the male and female elements unite, enter the uterus, and find security there by adhering to a fold in the lining of it. When more than one ovum is ripened and thrown off at the same time and fertilised by more than one spermatozoon, the result is the generation and birth of more than one child ; thus twins are presumably accounted for.

The double cell, the egg in which is the seed of life, after adhering to the uterus by wrapping itself round with a fold of the lining, begins to develop. Soon it is enveloped in two coverings of membrane, the one next to the future child being known as the amnion and the outer one as the chorion. Between these two layers is a certain amount of fluid, and inside the inner one, or amnion, there is more fluid, known technically as the liquor amnii, and commonly as the "bag of waters." In this fluid, then, the baby unfolds and floats, and is by it protected to a very considerable degree from external injury.

Many changes begin to take place in the mother's body from the time of conception, each change being made for the accommodation and welfare of the new growing life. At first the fertilised ovum receives its nourishment in the same way as a young chicken—from the contents of the egg. (A hen's egg is so much larger than the human ovum because the chicken must find its nourishment entirely—except for the certain small amount contained in the air absorbed through the shell—in the white of the egg during the three weeks of incubation, while the human ovum, after the first brief period, is sustained by its mother's own life.) Very soon the ovum throws out little thread-like projections from its whole circumference, through which the necessary nourishing fluids are imparted to the child from the mother. Thus the ovum now

becomes a small sphere, as it were, with minute, wave-like threads projecting from its entire surface. At the point in the lining of the uterus in which this sphere settles itself, these minute threads become much larger and stronger, and, in addition to the function of nourishing, they also perform the function of fixing the ovum to the uterus by embedding themselves in the lining of it, and at the third or fourth month they develop into the placenta.

This placenta consists almost entirely of bloodvessels, which come to and from the child's heart by means of the navel cord, and which constitute, with the cord and membranes, the "afterbirth." The placental bloodvessels meet and intertwine with corresponding bloodvessels of the mother's uterus. When the placenta is sufficiently formed to undertake entirely the nourishment of the child, the remaining projections on the surface of the ovum gradually wither away. Not only does the placenta provide the child with nourishment, including oxygen, but it is also the means by which carbonic acid gas and the other waste products of embryonic life are taken away.

The child is extremely susceptible, through this absorption, to any change in the mother's blood. But there is supposed to be no definite nervous connection between the mother and child, because there are no nerves in the navel cord. During the first two weeks the product of conception is called the "ovum," and from

then until the end of the fifth week the scientific name is the "embryo"; afterwards it is known as the "fœtus."<sup>1</sup>

From the beginning the growth of the ovum is very rapid, although nothing would be visible, except under a microscope, before the seventh day. About the tenth day a semi-transparent, greyish substance could be noticed; about the twelfth day this appears to have been developed into a round spot filled with fluid, inside which swims an opaque speck. The first appearance of the embryo is in this speck. At this age one grain would more or less balance the entire weight of the embryo and its coverings.

*At three weeks* it resembles, in size, a lettuce-seed, being about three to five lines in length, and weighing about three or four grains. The head is now distinguished by a slight depression which marks the neck; sometimes the cartilaginous beginnings of the bones of the spinal column are visible. By the end of the month the embryo measures from three-tenths to four-tenths of an inch. It lies in a curved position, and so takes up the smallest amount of room possible.

*At the fifth week* the embryo is almost two-thirds of an inch in length, and weighs about fifteen grains. The head is large in proportion to the rest of the body, and rudimentary eyes are formed. There are appearances of the lower

<sup>1</sup> According to His.

extremities and of the arms. The heart is like a minute flat tube. The cells of which the lungs are made are forming, and even the face and ears are distinguishable.

*During the seventh week* bone begins to form in the lower jaw. The navel cord is now attached to the child. The heart is perfecting its shape, the liver is developed, and the kidneys and genital organs are forming. The length is now nearly one inch. At eight weeks the embryo might be said to somewhat resemble a tiny doll. Its independent system of circulation is forming. The entire product of conception has now almost reached the size of a hen's egg, while the embryo measures one inch and weighs about one drachm. The sex is not yet apparent.

*During the third month* development proceeds apace. The eyelids are formed, the eyes have grown larger, the nose, mouth, ears, and neck are developed. The brain consists of a soft mass of substance; the heart is well formed, and, owing to the formation of the walls of the chest, is now hidden behind them. Muscle is developing. By the end of the third month, or, it may be, not before the thirteenth week, the sex is decided by the presence or absence of the uterus. The embryo's weight is now from two to four ounces, and the length from two and a half to four and a half inches. The face is becoming perfected. The skin is rosy-coloured and transparent, and the pink, soft



finger- and toe-nails are formed. The placenta is now in course of formation.

*By the end of the first week of the fourth month the sex is once and for all decided.* The abdominal muscles are now formed, and cover the intestines. Hair begins to grow on the head, and the convolutions of the brain are developing. The weight is now from four to six ounces, and the length from five to seven inches.

*During the fifth month* the skin of the fœtus grows firmer and thicker. All the parts are expanding, and perfecting themselves in shape. By now the head is covered with soft, downy hair; the kidneys are well developed, and a little waste matter may be present in the intestines. The fœtus has now sufficient power in its movements to cause them to be felt by the mother; it moves higher up in the abdomen, and this probably still further causes its muscular activity to be felt. This sign is known as the "quickenings," and is sometimes very welcome, because, among other reasons, at its appearance the sickness which may have been present usually disappears. Ossification, the formation of bone, is extending during this month. If the misfortune of a miscarriage should occur at this time, there is no hope of the child living. Its weight is now between eight and eleven ounces, and its length from seven to ten inches.

*During the sixth month* the average weight increases to from sixteen to twenty-four ounces,

and the length to ten or twelve inches. The hair becomes darker, and there are sometimes signs of eyebrows and lashes. The nails become firmer. There is fluid in the gall-bladder. Some fat begins to be deposited under the skin ; the epidermis, or outer skin, is now separately distinguishable from the dermis, or inner skin. It is rarely possible to keep alive for more than a very short time a baby born at six months.

*During the seventh month* the fœtus weighs from two to four pounds, and measures from twelve to fifteen inches in length. It is now well defined in all its parts, and more fat is deposited under the skin. The skin itself is firmer, and covered with a very soft, delicate form of matter which serves as a protection against the surrounding fluid. The bones of the head now become arched. If the child is born it is frequently possible to keep it alive.

*In the eighth month* there is chiefly an increase in size, thickness, and action. The skin has a fine, downy covering, over which is the soft, sebaceous matter already referred to. The length averages between fifteen and eighteen inches, and the weight between four and six pounds.

*During the ninth and final month* the tiny body is perfected for its separate existence. The life enclosed in that body is made ready to begin its independent development, having already inherited from both parents, particularly from the mother, a tendency to good or



evil, a heart inclined to love or to hatred. Towards the close of this month, generally a few days before birth, the uterus sinks a little, settling lower down in the pelvis.

At the end of the ninth month, fortieth week, or two hundred and seventy-eighth to two hundred and eightieth day after conception, the baby's birthday arrives. Owing partly to the exact time of conception being impossible to ascertain, partly to the exact degree of the child's development being unknown, and probably partly to other reasons not yet understood, the precise time of birth is always doubtful. The usual period of pregnancy may be shortened or lengthened by several weeks, according to the health and vitality of the mother. The length of a child at birth averages about twenty inches, and the weight from six to ten pounds—the average being stated to be a little over seven pounds. Rare cases have been reported where the weight at the proper time of birth has not exceeded three or four pounds, and other cases—less rare, but by no means common—where it has exceeded ten pounds. Male children frequently weigh a little more at birth than female children; their heads are larger, and the bones in them firmer. Probably this fact accounts for the greater difficulty attending the birth of male children, resulting in a severer confinement, or occasionally in the birth of a stillborn child.

The child usually lies in the uterus in a vertical

position, with the head downwards, during the latter months of pregnancy—not, as was formerly supposed, only towards the extreme end of this period. In some cases, of course, the position varies ; the child may change its position immediately before confinement, or it may lie horizontally or obliquely in the uterus. The child lies in the uterus in the most conveniently suitable way for the size of this organ, so that its body takes up as little space as possible. The spine is curved, the chin rests on the chest, the arms are bent across the chest, and the legs bent and drawn up against the abdomen. Variations of this position occur, but are not usually of much consequence.

How truly wonderful seems the fact that in the pre-natal life of a child there can be seen all the various stages by which man has descended from a common origin ! The human embryo in its development springs from an egg or germ which is outwardly similar to that from which every other living organism springs. And not only is the beginning the same, but all life develops at first along the same lines—from that minutest of living entities, the structureless moneron, upwards. Fish, reptile, bird, lower animal—all serve man as a ladder in his evolution ; and during his embryonic life he climbs again to his human life by each of these rungs. “The series of forms through which the individual organism passes during its progress from the egg-cell to its fully developed state is a

brief, compressed reproduction of the long series of forms through which the animal ancestors of that organism (or the ancestral forms of its species) have passed from the earliest periods of so-called organic creation down to the present time." <sup>1</sup>

Thus the element of animate life, the egg from which man springs, compresses "into a few weeks the results of millions of years"—millions of years verily, for from the ape alone man has travelled so far in his evolution that the distance is immeasurable. This minute egg sets forth the history of man's development "from fish-like and reptilian forms, and of his more immediate descent from a hairy-tailed quadruped. That which is individual or peculiar to him, the physical and mental character inherited, is left to the slower development which follows birth." <sup>2</sup>

<sup>1</sup> Haeckel.

<sup>2</sup> Edward Clodd.

## CHAPTER VIII

### SIGNS, SYMPTOMS, AND DURATION OF PREGNANCY

“Not to know at large of things remote  
From use, obscure and subtle,—but to know  
That which before us lies in daily life,—  
Is the prime wisdom !”—MILTON.

THERE are various signs and symptoms which indicate in normal cases the existence of pregnancy. It must be remembered, however, that any one of these symptoms taken by itself, or even in conjunction with another, is not proof positive of this condition, as it may be due to entirely different causes. Also, no two women are alike, so that the signs or symptoms are liable to alteration, and some of them may be completely absent.

The usual ones are :

*The Cessation of Menstruation.*—The monthly period passes with no appearance of the usual discharge. This may be due to other causes, such as mental strain, disease of the uterus, general debility, or chill ; but in the case of a married woman it is generally looked upon

as the first more or less reliable evidence of pregnancy.

Although such cases are exceptional, the monthly discharge has been known to continue during the early months of pregnancy, and in extremely rare cases during the whole period. It must also be borne in mind that conception can occur when menstruation is normally absent. Thus it is possible for a woman who is nursing her baby, and with whom, in consequence, the monthly discharge may have temporarily ceased, to become pregnant; it is also possible for pregnancy to occur before menstruation has begun at all. One important point concerning the cessation of this discharge is that it may be of use in calculating the time of birth.

*Morning Sickness.*—Sickness or nausea may be present on rising in the morning, as is most commonly the case—hence its name; or it may occur in another part, or in severe cases during the whole, of the day. Sometimes it begins as early as the first two or three weeks after conception, but more usually not until the second month, and it ceases in most cases when the sign of “quickenings” is noticed during the fifth month.

Many opinions have been held concerning the cause of this sickness, the one now generally accepted being that of the stretching of the fibres of the uterus by the growing embryo, and the consequent irritation of the uterine nerves. Like various other sympathetic dis-

turbances of the system, it generally occurs in its severer form in women of highly-strung temperaments. As an ailment of pregnancy, it will be found treated under that heading.

*Unusual Likes and Dislikes.*—Sometimes these feelings may become morbid and unnatural when allowed to run riot, but a healthy, self-controlled woman suffers very little inconvenience from them. When the craving is harmless there can be no objection in gratifying it if possible ; but when it is harmful or its gratification difficult or impossible, a determined effort should be made to escape from the slavery of it by expelling it from the mind, by resolutely thinking of other things, and by attending to the rules of health.

*Changes in the Appearance and Sensation of the Breasts.*—Considering the sympathy known to exist between the breasts and the uterus, these changes may well be looked for. They may begin to take place a week or two after conception, but more usually are not apparent until the second or third month, or even later. The breasts increase in size and tenderness owing to the active preparation of the milk-ducts for their future work, and the little superficial veins on the skin show up clearly. Sometimes small, sharp pains or prickles are felt in them. The nipple darkens in hue, and the pink band of skin round it, known as the “areola,” becomes darker and broader, owing to deposits of pigment. Scattered through the areola are a



number of small, roundish elevations, the so-called "glands of Montgomery," which result from the hypertrophy of the sebaceous glands. In dark women especially the change in size and colour of the areola is very marked, while in women of fair complexion it may be scarcely noticeable. These projections on the areola usually increase slightly in size and number as pregnancy advances. If the skin be of a fine texture, slight silvery streaks may be noticed on the breasts ; sometimes as early as the third or fourth month there are traces of milk in the nipple, and in the case of a woman pregnant for the first time this may be taken as a reliable sign of her condition. Supposing, however, that she has already borne a child, this sign becomes of much less value, as a little milk may have remained since the last time of lactation.

Occasionally it happens that the breasts experience little or no change during pregnancy, and provide no food for the baby after birth. When this occurs it may be due to the unhealthy condition of the mother herself, or to inherited unhealthy tendencies, since it is not only in this generation that mothers have wilfully refused or have been unable to fulfil this duty to their children. Want of use weakens, wastes, and eventually destroys the power to use.

*Changes in the Size and Appearance of the Abdomen.*—The gradual growth of the uterus to suit the needs of the developing child is noticeable by the third or fourth month, some-

times earlier. Before the uterus has risen out of the pelvis there is no appreciable increase—in fact, it is generally believed that at the beginning of pregnancy the abdomen is flatter and smaller than usual, owing to the increased weight of the uterus causing it to descend slightly in the pelvis. Then, as the ovum develops, it finds the region of the pelvis too small to meet its requirements, and so gradually rises up above it. During the fifth month the movements of the child have so far increased in strength that they can be felt by the mother.

About the fifth month the uterus has risen to within two inches of the umbilicus or navel. By the sixth month it reaches the navel, or is just above it; by the seventh it is as far above the navel as it was below it at the fifth month. The navel, by this time, projects, instead of being in its usual flattened or depressed condition. During the two last months the uterus rises, until it seems nearly under the chest. Owing to the small amount of room then available, breathing from the diaphragm—or “abdominal breathing”—may be interfered with. During the last week or so before confinement the uterus sinks somewhat, owing partly to the relaxation of some of the soft parts in preparation for the birth.

The extent to which the abdomen increases in size depends, of course, upon the contents of the uterus, and somewhat upon the condition of the woman's muscles. In the former case it



is naturally increased by the presence of twins, or it may also increase considerably in a woman who has already borne children. Sometimes the amount of fluid, or "liquor amnii," in the uterus immediately surrounding and protecting the child may vary very considerably in different women, so that when present in great quantity it would materially affect the size of the uterus, and consequently of the abdomen.

That the size of the abdomen is affected by the condition of the woman's muscles is obvious. If they are weak and flabby, there is no power available with which to employ them in the support of the uterus. If they are under proper control, healthy and elastic through right use, they can be of much assistance in keeping up and strengthening the walls of the abdomen, and in preventing them from giving way unnecessarily to the uterus.

As a result of the stretching of the skin, streaks, like tiny scars, may appear on the abdomen. Frequently a long, brownish line, the result of an irregular deposit of pigment, can be noticed extending from the centre downwards. Sometimes the skin of the abdomen becomes darker in hue than it usually is.

*Quickening.*—When the child within the uterus has developed sufficient muscular power to cause its movements to be felt by the mother, the "quickening" stage has been reached. This happens usually about the middle of the fifth month. The idea that the child is not alive,

or "quick," before this period is an utterly mistaken supposition, for from the beginning of the earliest muscular development contractions of the muscles are known to occur. Consequently the notion that wilful abortion—the artificially forced expulsion of the child from the uterus—is a greater crime after "quickening" than before is a totally wrong one. From the moment that the fertilised ovum has started growth in the uterus it is a human life, for the safety of which its parents are responsible.

The first sensation of movement within sometimes begins gradually as a feeling of gentle fluttering ; at other times the movements are felt suddenly and decidedly. As the child grows they increase in strength, and sometimes cause nervous feelings or slight faintness. With some women the discomfort experienced may be very great ; with others the sensation may be not in the least troublesome. Towards the latter part of pregnancy the little fists and heels can frequently be noticed as tiny projections on the abdomen. It is generally possible to distinguish the position of the head.

Taken by itself, the sensation of quickening is not unmistakable proof of pregnancy, since the fancied movements of a child may be due to other causes, such as imagination, flatulence, irregular contractions of the walls of the abdomen, or tumour. When, however, this symptom is preceded or accompanied by other marked ones, there is no doubt of the existence of pregnancy.

At this period of quickening—if not before—certain ailments, particularly sickness, generally cease from troubling. And as it usually occurs in the middle of pregnancy, the date of confinement can be roughly reckoned from it if the more exact method has been neglected or is impossible. There is less likelihood of a miscarriage occurring after quickening than before it.

*Alteration in the Colour of the Lining of the Vagina.*—This sign, believed by many people to be of value, occurs usually quite early in pregnancy. In the non-pregnant condition the skin or mucous membrane lining the vagina is of a red colour, but after conception it frequently changes to a more or less deep hue of violet, probably due to the congestion caused by the growing uterus.

Other less important and occasional signs are :

*Salivation.*—Either at an early period or during the whole time of pregnancy an extra amount of fluid or saliva may be noticed in the mouth. The amount may vary considerably in different cases. This is, in some cases, connected with disturbances in the digestive organs, in others it may be a nervous disorder.

*Difficulty in Restraining the Urine.*—A frequent desire to relieve the bladder is experienced in many cases, owing partly to the pressure of the uterus against it.

*Swollen Legs, Varicose Veins.*—These occa-

sionally occur, and various other ailments ; and although of practically no value in themselves, they serve as additional signs to some women.

*Mental Changes.*—The happiest and bravest of women may in some cases become slightly depressed and nervous ; the sweetest-tempered, irritable ; the calmest, excitable and impatient ; the most tactful and affectionate, exasperating and listless. Much depends on the health, *and still more on the self-control*, of the individual woman. She must always remember that she will undoubtedly change for the worse if her will allows her mind to give way to every petty inclination, or if she persists in leading an unhealthy life, because this is bound to affect the quality of her mind and the power of her will. In her defence, it may be observed that there is some excuse for her, and that she possesses every right to expect a great amount of patience and consideration from those around her.

As well as these disturbing mental, temporary changes, there may happily be, on the other hand, a mental change for the better in women in whom such a change is most desirable.

Besides all the preceding indications of pregnancy, there are other very valuable ones which can be observed by a doctor, so that when there is any uncertainty it is better to consult him, in order that the woman may regulate her life accordingly.

*The Duration of Pregnancy.*—The period of ten lunar or nine calendar months, forty weeks,

or two hundred and eighty days after the last menstruation, is usually reckoned as the probable length of pregnancy, though the greatest number of confinements is said to occur between the two hundred and seventy-fourth and the two hundred and eightieth days. There are cases in which this period is prolonged to three or four weeks over the average time, but these are exceptions to the general rule, and sometimes may be merely owing to the fact that wrong calculations have been made.

Many are the rules and tables drawn up for calculating the probable time of delivery, but perhaps one of the best, and certainly one of the simplest, is to take the first day of the last menstruation, add seven days to it, and count backward three months or forward nine months. Thus, if the first menstrual day were August 10th, the probable date of confinement would be about May 17th in the following year ; if the first day were March 1st, the confinement would be about December 8th. When February is included in the months, two more days must be added to the date, or, should it be leap-year, only one more.

There are two periods in the month when conception is most likely to occur—during the ten days immediately following menstruation and during the five days which immediately precede it ; therefore the difference of a week or so between these periods may result in a similar difference of time at the confinement. As the

rules for calculation are generally based on the former period as being the more probable for conception, it follows that when the expected date of confinement is passed, it may be at least another week or so before the event takes place.

It is not unusual for *first* babies to arrive a little earlier than they are expected. When they are girl babies especially they may be born a little previous to the date, or punctually on it, and when boy babies they are said to be frequently a little late. A possible reason for this is given under the subject of the sex of the baby.

The confinement is said to begin, in a good many cases, at the particular time in the month at which menstruation, in the non-pregnant condition, would have occurred. All through pregnancy, if a miscarriage is threatened or likely, special care should be taken at those particular times in the months which would have been menstrual periods.



## CHAPTER IX

### COMMON AILMENTS

"Love is a great thing, yea, a great and thorough good. By itself it makes everything that is heavy, light ; and it bears evenly all that is uneven ; for it carries a burden which is no burden, and makes everything that is bitter, sweet and tasteful."—THOMAS À KEMPIS.

IT is without doubt true that pregnancy is not naturally a diseased condition any more than is any other natural function, although, unhappily, the majority of its present-day manifestations might easily cause it to be so imagined. There are, however, certain ailments at the present day of which one or two are frequently found to accompany this condition, and it is with these only that this chapter is concerned. Rarer and more serious diseases must always be dealt with individually by properly qualified medical practitioners, and even the minor ailments sometimes call for professional treatment. But there always remains much that each woman can do for herself and have done for her, in her own home, to lessen the usual discomforts of this condition. To a

few women the period of pregnancy is the healthiest time of their lives, but to the vast majority it is most tedious, troublesome, and frequently painful, in spite of the fact that it should not, and to a very considerable degree need not, be so.

*Sickness* is one of the earliest ailments, and occurs so frequently that it is now looked upon as a symptom of pregnancy. It may vary from a slight inconvenience to a highly distressing and even serious illness. Sometimes it appears a few days after conception, but usually not until the second month, and in most cases it ceases entirely during the fifth month, at the time of the "quickening." It has been observed before that it originates probably in the distension of the uterus, and consequently of the uterine nerves. In its simple form it is usually troublesome on rising in the morning, but it is by no means confined to this particular time. It may be felt before or after every meal, or during the latter part of the day, or in severe cases during the entire day. Sometimes it is more of a sensation of sickness or nausea than actual vomiting. Even when the latter occurs, one good point about it is that afterwards a woman may feel quite well enough and ready to enjoy her breakfast or other meal, as though nothing disturbing had occurred.

When it is present in the ordinary way—in the morning—a cup of coffee, a little milk and lime-water, a few biscuits, some bread and milk,



or a glass of sparkling Koumis or other effervescing drink, taken before rising, can be tried, and one or other of them may prove successful. Sometimes a little pounded ice, swallowed before rising, or a cold-water compress applied to the stomach, or ten minutes or so of hot fomentations to the same spot, or a wet bandage worn round it, may give relief. It is well to pay attention to the bowels, to see that they perform their function regularly and sufficiently. When the sickness becomes really distressing and continuous a doctor should be consulted. When everything possible, or at any rate advisable, has been tried, professionally and otherwise, and still without success, there is nothing left to do but to bear it patiently and cheerfully, with the remembrance that at the time of "quickenings" there will probably be an end of the trouble. Also, comfort can be derived from the reflection that a sick pregnancy is said to be usually a safe one—the risks of miscarriage being slight—and that when sickness does not occur, some other ailment, more uncommon and perhaps equally troublesome, may take its place.

Since there is no ailment of pregnancy which can be more completely prostrating, it should be treated in time when inclined to develop to any extent. As it is *directly* due to the sympathetic disturbance of the digestive system, it can frequently be obviated by a suitable diet. The food should be simple and nourishing in

quality and moderate in quantity, the diet being always carefully regulated to suit the individual taste. It should be borne in mind that most people are far more prone to eat too much than too little. If any particular harmless article of diet be wished for, it is as well to procure it if possible, as it may sometimes be retained when others less favoured are rejected. The same good result may also follow an unexpected article of food. When the wish for any special thing is unwise, or the gratification of it impossible, a woman must just turn her thoughts in other directions and manage without it.

The diet should be varied as much as possible, so that it is not allowed to become distasteful by the monotonous reappearance of any particular article. And it is better to have small quantities replenished than to overburden the plate, and so run the risk of disheartening the eyes and blunting a capricious appetite. When possible, meals should begin with fruit, and all rich, spiced food should be avoided throughout the entire pregnancy. Eating should be performed deliberately and conscientiously ; and it is a well-known fact that cheerfulness during meals is a great aid to digestion.

Sometimes when the nausea is severe, with little actual vomiting, it may be somewhat held in check by taking little meals at short intervals, instead of at regular meal-times only. Thus a cup of some good food made with milk could be varied with a bowl of broth or beef-tea and

other similar light, nutritious refreshments (to be taken in between, but not necessarily altering, the usual meal hours), so that there would be, perhaps, an interval of two hours between each. When difficulty is found in retaining any ordinary—particularly solid—food, iced milk with lime- or soda-water, or beef or calf's-foot jelly, may be tried. In rare cases it may be necessary to administer nourishment by injections through the rectum. Care must be taken to avoid fatigue. Rest of mind and body is generally advised.

There are many recommended medicines, any one of which may be found successful in one case but useless in others. Such occasionally effective ones are oxalate of cerium, bismuth, ipecacuanha, tincture of nux vomica, salicine, and various drugs, such as compound tincture of cardamoms, morphia, opium, menthol, chloral, or cocaine. Some of these may be better administered by injections under the skin, or by means of the rectum or vagina, than by swallowing. It goes without saying that such drugs must be used only when the consent and prescription of a doctor have been obtained.

Since the sickness presumably has its origin—through the disturbed digestive system and uterine nerves—in the congested condition of the uterus, this organ must be rested frequently throughout the day, by keeping the body in a recumbent or horizontal position. And a sitz-bath, dealt with more fully in the next chapter,

may give very beneficial results to those who will take the trouble to give it a fair trial.

Open-air exercise, pleasant occupation, sympathetic and cheerful companionship—particularly that of an affectionate and unselfish husband—or a change of air, will in many cases help to alleviate the sickness. Sometimes the cause of the sickness may be a displaced uterus, so that if this be corrected the ailment will completely disappear. There is one method, recommended by many doctors, of checking severe cases of sickness or nausea. This is known as the dilatation of the cervix, and sometimes its effect is magical. But it is a treatment requiring the utmost care and skill, and consequently can only be attempted by a doctor, when the case of sickness is severe enough to warrant it. Although slight in itself, it would be an extremely painful as well as a highly dangerous proceeding if attempted unprofessionally. An abortion might thus be caused, which is always a grave danger to the woman's life, and, in the event of her recovery, frequently destructive to her health. Only in those happily rare cases when it is the opinion of more than one doctor that the patient's life is seriously threatened is abortion risked on the chance of saving her life.

*Constipation* is a frequent accompaniment of pregnancy, even among those women who at other times are not afflicted with it. It is a symptom of some diseases and a cause of many

more, and so it should receive proper consideration from the beginning. It may have its origin in bad habits of inattention to the dictates of Nature, or it may be induced by exhaustion, or by the general disturbance of intestinal action caused by the growing uterus.

In either or in any case, it is obvious that the poisonous gases which are generated in the body by various chemical actions, and the waste matter eliminated from the food in the stomach, must be disposed of daily if a healthy mind and body be desired. Yet the inexcusable carelessness and crass ignorance with which many women treat this highly important function is only too well known. The results of such neglect may be serious at any time, but they are much more likely to be so during the important and frequently already sufficiently burdened time of pregnancy. Apart from its poisonous effects on both mother and baby, it has been known to induce a miscarriage. When constipation is present in labour, it may seriously obstruct it and aggravate the pains. When their natural escape is prevented, the reabsorption of the poisonous matter and gases, and the consequent effect on the thus partially poisoned nerve centres, may be noticed in unpleasant breath and taste in the mouth, unhealthy skin, headache, neuralgia, depression, hysteria, and numerous other complaints.

A great number of cases are cured by proper exercise and diet—*exercise*, because it increases

intestinal as well as other physiological action ; and *diet*, because the intestines are naturally primarily affected by the contents of the stomach. A brisk walk every day, or when this is impossible some exercises similar to those described in the next chapter, or, better still, both the walk and the exercises when possible, will prove of much assistance. Exercise, it must be remembered, should be moderate, always suited to the strength and needs of the individual, for the effects of over-fatigue can be as disastrous as those produced by no exercise at all.

Fruit, either stewed, raw, or merely the juice itself, should be much in evidence in the diet. Taken as the first course at breakfast, it may advantageously form a considerable part of each meal. Food that is of too highly concentrated a form should be avoided, and brown bread should be eaten instead of white. Eggs have usually a constipating effect, and so have farinaceous foods generally, also strong tea and claret. Plenty of pure water, both hot and cold, should be drunk.

If it be necessary to take any medicine, it must be mild and unirritating in action, as violent purging might have most disastrous consequences. A few senna-leaves tied up in a piece of muslin, and placed with prunes or other fruit while stewing ; a dessert-spoonful of olive-oil or glycerine taken two or three times a day ; a small quantity of one of the aperient



mineral waters taken on rising in the morning ; cascara sagrada in either the liquid or " tabloid " form ; a little compound liquorice-powder taken at bedtime ; or a glycerine suppository inserted into the rectum—one or another of these may prove all that is necessary. Gently rubbing round or massaging the abdomen, or the use of the cold or tepid sitz-bath, is often effective.

But perhaps the most simple and effective remedy is that of giving injections by means of an enema to the rectum. A great point in its favour is that it can be used without causing any disturbance to the digestive organs. Any one can very easily manage this little operation for herself. The hanging douche-can tube and enema nozzle is preferable to the less comfortable ball enema. By lying on the side the position of the anus can be easily located. The nozzle of the enema should be smeared over with a little vaseline and then carefully inserted. A pint, or quart, or more, of tepid or hot water, with a little pure soap dissolved in it, or a little glycerine or oil added to it, should be injected, and retained for a little time in ordinary cases and for as long as possible in obstinate ones. The higher the douche-can is held—it is best hung on a nail above the operator—the more powerful is the flow of water through the tube and consequently into the rectum.

When daily relief has not occurred and the poisonous matter has been allowed to collect, it is much better to give a copious enema before



permitting any action of the bowels, so that the contents may be rendered less condensed, and much discomfort and possible pain averted. In the comparatively rare cases where constipation is of lengthened duration and the enema proves useless, there are still mechanical means at the doctor's disposal.

*Diarrhœa*, as a complaint of pregnancy, is of far rarer occurrence than constipation. Sometimes the latter ailment may be solely to blame for the appearance of diarrhœa, Nature seeking thus to relieve herself of the noxious and accumulated waste matter. When such is presumably the case, interference may do more harm than good—in fact, it may be wise to assist by giving castor-oil or some other aperient. But diarrhœa is more frequently caused by errors in diet, chills, mental disturbances, or by the use of violent purgatives, and the removal of any one of these common causes may stop it. Change of air or the first summer sunshine may be responsible for it, but in this case it soon rights itself. Owing to the possibility of its bringing on a miscarriage, a severe or prolonged case should never be neglected.

A cure can usually be effected by giving small injections of cold, cool, or hot water at frequent intervals to the rectum; by taking cool sitz-baths, by wearing a wet compress round the abdomen, or by merely lying quietly on the back. The diet must be plain and nourishing, stimu-

lants, much meat, condiments, or anything known to act aperiently in the individual case being, for the time, avoided. (Fish might so act with one person, hot tea with another, or oatmeal, fruit, vegetables, coarse brown bread, and so on, with another.)

Woollen clothing should be worn round the abdomen, next the skin, to assist in promoting its action and as a prevention of chill. In many cases, as the action of the skin increases, the diarrhœa correspondingly decreases. When medicine is resorted to, aromatic chalk mixtures, or small doses of some combative drug, may be professionally ordered.

*Hæmorrhoids*, or *piles*, are sometimes the result of constipation, the hæmorrhoidal veins being congested or inflamed, and the surface of the skin injured or poisoned by the difficult actions of the bowels, and by the pressure and weight of the enlarging uterus. Relief is frequently obtained, as in constipation, by exercise and a careful diet. The bowels must be relieved daily, and all difficult and painful evacuations must certainly be avoided. When it is probable that the evacuation will not be easy it is best to give an enema as advised for constipation. Sometimes a glycerine suppository—similar in appearance to a small cone-shaped jujube—smeared with vaseline, inserted into the rectum deeply and gently by the fingers, and retained, may afford relief. Each motion of the bowels should be followed by bathing the afflicted part,

and by applying some suitable antiseptic ointment. The use of a medicated toilet paper is advisable. Such a simple remedy as the local application of a cold compress or poultice, or of hot fomentations, or of injections of water into the rectum, should be tried. The patient should lie down a good deal if possible, as the position of standing tends to aggravate the pressure on the congested veins. Over-exertion should be specially avoided. The injection of a dessert-spoonful of glycerine to the rectum immediately before breakfast acts as a preventive of piles in some predisposed cases, and as a cure in some of those already developed.

In all severe cases professional advice should be obtained. Sometimes it is necessary to puncture the piles before relief can be given, at other times the actual removal of them may be the only remedy—this being, happily, no longer the serious operation it once was. Occasionally the complaint persists in spite of all attempts to dispense with it.

*Neuralgia* may be caused by the unhealthy condition of the nerves generally, or of those affecting a particular part, such as dental neuralgia or toothache brought on by the decay of the teeth. It can be cured sometimes by plain but liberal diet, plenty of fresh air, the full amount of sleep, change of air, healthy occupation of mind as well as of body, and perhaps a tonic medicine. Fat is good to eat, as nerve-tissue has about 90 per cent. of this in it.

Drug-taking should be avoided unless expressly ordered by a doctor, for many drugs merely relieve the pain for the time being and do not touch the real cause of it. Over-fatigue, of mind as well as of body, must be especially avoided.

Menthol rubbed over the seat of the pain, hot flannels applied, massage, the application of electricity, the avoidance of stimulants—such as alcoholic drinks, tea, and coffee—rest and peace if they can be obtained, can be of much benefit. Nervous headaches in particular are frequently counteracted by fomentations—that is, hot cloths of flannels wrung out as dry and as hot as possible—applied to the head or back of the neck, and by taking at the same time a hot foot-bath.

Neuralgia of the stomach, or of the uterus, is sometimes present in pregnancy, and has been the cause of many false alarms.

The sufferer must remember that her wish, backed by her will, to be free from pain is usually a powerful remedy. On the other hand, to meet trouble half-way, or merely to fold the hands, so to speak, and accept the pain of neuralgia with more or less resignation and perhaps complaining, is a method which invariably increases its severity.

To counteract it one must turn the thoughts resolutely away to other things, foster the brave idea that the will is a free agent, not bound by the nerves, but binding them, and at the same

time take the trouble to live so that the blood is made healthy. These are the efforts, the counter-irritants, as it were, which need some making, but which win their reward.

“Pain is the prayer of a nerve for healthy blood,” Romberg truly says. Therefore, when pain is suffered, Nature is drawing attention to the fact that something is not as it should be, is “out of joint.” Then assistance must be given at once and hopefully. If it be given grudgingly, with a gloomy foreboding of its probable uselessness, if the mind be allowed to suggest to itself the probability of failure, it is not surprising when the result is unsuccessful, because the gloomy foreboding may be stronger than both the faint hope and the remedy, and so conquer its twofold but weaker foe. There is unfathomable power in suggestion and self-suggestion. The one who receives the suggestion either from herself or from another is started by it on the road to good or to ill, and the distance she travels depends in a great measure on two points—the power with which the good or bad suggestion is given, and the capability she possesses of assimilating it.

Nerves are not easy to subdue by ordinary means when they have once been allowed to get the upper hand, but *the will to be well and to forget oneself in service for others, and the living of a healthy, placid life*, will work miracles beyond belief.

*Toothache* is a very common complaint during

pregnancy, so much so that it has been said that a woman loses a tooth with every child. The extra demand on her health, the large amount of nutrition which the baby absorbs from her, and the acid dyspepsia from which she sometimes suffers, are the general causes. Many doctors are of opinion that the teeth should not be interfered with during pregnancy, in order that every risk of shock or strain to the system should be avoided. But when the toothache is very severe, particularly during the early months, a little necessary attention to the teeth might be the lesser evil. One bad tooth skilfully extracted, or two or three stopped, a little general patching-up done, may make all the difference between misery and comparative comfort.

There are many little temporary remedies for ordinary toothache, some of which are well known. One or two of the following, however, may not be so generally known. Soak a little ball of cotton-wool in eau-de-Cologne, or brandy, or oil of cloves, or equal parts of oil of cloves and laudanum, and place it in or against the tooth ; soak the cotton-wool in camphorated oil or laudanum, or something of similar use, and place it carefully in the ear ; sprinkle pepper or ginger on a piece of brown paper, soaked in brandy or other spirit, and place it to the cheek for an hour or so ; apply a poultice of linseed, or of hot bread or ginger ; foment the cheek with hot camomile or poppy-head tea ; try to turn out of the mind every thought of



pain by filling it instead with pleasant and absorbing thoughts on any other subject.

*Miscarriage*—or abortion, as it is sometimes called in the earlier months—may result from general unhealthy living, which, in its turn, may be caused by impure or overheated air, late hours, want of exercise, over-fatigue, careless diet, or by other neglect. Too frequent intercourse may produce it. The presence in the mother of certain diseases, such as severe pneumonia, or in either parent of the horrible disease of syphilis ; any state affecting the nervous system, such as mental shock or anxiety ; corpulence ; a sudden shock to the body, such as might be caused by a blow or fall ; the death of the fœtus, are causes any one of which may be liable to induce conditions which lead to miscarriage. So much depends on the individual woman. With one, the missing of a single step in coming downstairs might prove disastrous ; with another, a fall from the top to the bottom of the house might have no bad effects in this way, however damaging it might be in others. Another possible cause of miscarriage is displacement of the uterus, the proper correction of which might put matters right.

In the first two or three months of pregnancy a miscarriage may actually occur without the knowledge of the woman, its symptoms being then similar to those of profuse menstruation. When it occurs after the third month it must receive at least as much attention and care as



is expended on a confinement ; for a miscarriage is a serious matter and may cost a woman her life, to say nothing of its possible disastrous consequences to her health if she recovers, and to the life of the child. A miscarriage is usually threatened when bleeding or hæmorrhage occurs followed by pains. In the event of one only of these symptoms being present, the miscarriage may sometimes be avoided by prompt treatment, but when both the pain and the hæmorrhage are present the hope of such avoidance is slender.

Directly hæmorrhage is noticed, the patient must retire to bed, lying flat—perhaps even raising the foot of the bed—keeping absolutely quiet, and not being overheated with bed-clothes. For no reason at all must she raise herself or move violently. The doctor should be sent for immediately. Sometimes cold compresses over the lower part of the abdomen may aid in checking the hæmorrhage. The food must be light and nourishing, and constipation avoided by gentle, never by violent, means.

A miscarriage induced by artificial means is only brought about *legally* when the life of the mother is in danger. If it be procured artificially for any other reason, it is deservedly called *criminal*, for it is then the wanton destruction of life, perhaps of more than one life. Suitable punishment naturally follows sooner or later to the willing victim of it, and certainly to the operator who achieves such an infamous result.

*Flatulence, heartburn, acidity of the stomach, loss of appetite,* and other disorders of the digestive system, are sometimes of much inconvenience. In any one of these a cure cannot be effected until the digestion is strengthened by a light and nourishing diet. Daily walking exercise in the open air must be taken. The mode of eating must be slow and thorough, and the last meal in the day served early in the evening, and of an easily digested nature. The sipping of a tumbler or two of very hot water (a few drops of peppermint or winter-green may be added with advantage), before or during each meal, is of great assistance. Meat should be eaten in strict moderation, and all irritating condiments left severely alone. An excessive quantity of sugar, whether eaten raw or in sweets or jam, is harmful.

Indigestion may be the cause of palpitation or rapid beating of the heart. As remedies for indigestion, it is well to try "tabloids" of soda-mint, charcoal in powder or in biscuit form, preparations of bismuth or pepsine, or other medicines of similar properties sold by most chemists. Sometimes relief is afforded by taking occasional small doses of glycerine, or of about thirty drops of aromatic spirits of ammonia or sal volatile in water.

Eating too much is a much commoner mistake than eating too little ; an overworked stomach soon gets out of order. The drinking of plenty of pure and, if possible, soft water is good,

because it acts as an internal bath, cleansing and invigorating the linings and passages.

Loss of appetite is frequently cured by preparing dainty little meals of some wholesome article of food—if unexpected, all the better ; or by change of air, or simply by improving the general health. Sometimes a little tonic medicine is necessary.

*Salivation*, already mentioned as one of the occasional lesser symptoms of pregnancy, is sometimes excessive enough to become really troublesome. It can be checked more or less by astringent gargle and mouth-washes, such as a teaspoonful of tincture of myrrh, or a dessert-spoonful of vinegar in half a pint of cold water ; or the sucking of ice or tannin lozenges ; or by the application of electricity to the salivary gland which is known as the parotid ; or by small and always professionally ordered doses of certain drugs. It may sometimes be a nervous rather than a digestive disorder, and so all the more difficult to treat satisfactorily by the ordinary means.

*Insomnia*, or sleeplessness, may be due to the neglect of some simple rule of health. Heavy or indigestible meals taken late in the evening should be avoided. When the meal is over, and the digestive organs are being actively employed in digesting it, the brain should be rested as much as possible, anything taxing or thoroughly rousing it—as worrying, reading, or writing might easily do—being avoided. Easy

sewing or any other mechanical employment, a little physical exercise—such as a walk in the night air or a few gently performed exercises—or merely talking pleasantly on unexciting and unirritating subjects, may have a drowsy effect. Over-exertion must be avoided, as well as all exciting influences—such as the society of too many or of too enlivening people. Bed-time should be fixed at an early hour.

It is frequently of use, and always of benefit if properly performed, to take a tepid or cold sitz-bath immediately before retiring, followed by a brisk rubbing of the entire body; or to have the body, particularly the back, gently massaged or rubbed by an attendant, and the hair brushed and plaited comfortably. Cold feet are a frequent drawback to sleep; they may be relieved by a hot foot-bath, or by hot-water bottles placed near them or between the knees, although these two ways still further weaken the circulation. By far the better plan is to warm them by walking, or by having them rubbed briskly with a rough towel after first immersing them for a few seconds in cool or tepid water. Sometimes hot and cold foot-baths are successful when used alternately, each being followed by friction. Friction of the skin is a kind of placid exercise, and so of use when no other is available.

The bedclothes must be sufficiently warm, but never more so than is necessary, and they should be of as light a nature as possible. The use

of a pillow slightly higher than usual may prove serviceable, as it assists the flow of the blood down and away from the brain. A comfortably warm but not overheated bedroom may assist in inducing sleep.

When in bed, the thoughts must be forbidden to dwell on any subject but that of sleep, for sleep can very often be obtained by the *cultivated* exercise of will-power. Too much of an effort to think of it must of course be avoided, as this would cause more blood to be driven to the brain, which is exactly the condition to be guarded against. But if the woman will honestly try the plan of making and reiterating in her mind the powerful suggestion that sleep shall come, that it is coming, that she is growing more and more sleepy (not of how badly she *wants* to become sleepy), she will gradually acquire, by this method of self-suggestion, the useful accomplishment of being practically able to hypnotise herself to sleep. And in acquiring this her will will be strengthened and her power of concentration deepened, so that she is doubly benefiting herself. Breathing very deeply and slowly, both in inhaling and exhaling ; looking fixedly at some particular object in the room—a bright light sometimes acts quicker than other things, but is more or less injurious to the eyes ; eating a plain biscuit and drinking a little cold water ; opening and shutting the eyes regularly and slowly ; walking about the room a little and giving the body a brisk rub all over ; counting

untold flocks of sheep in solemn procession through a hole in the hedge or dilapidated wall—these are some of the many methods of inducing sleep. The first one—that of slow respiration—is frequently successful, and a very healthy exercise into the bargain.

Drugs should never be taken except as a last resource, and with the permission of the doctor, for three very good reasons:

1. The body is all the better without them.
2. The unconsciousness they produce is of very inferior quality to natural sleep.
3. Their occasional use may easily grow from the exception to the rule, and thus result in deeply rooted habits and unhappiness.

*Leucorrhœa*—or “whites,” as it is commonly called—is a pale discharge from the vagina frequently accompanying pregnancy, and of very common occurrence in the non-pregnant condition also. Unless excessive, it is of minor importance during pregnancy. When severe it can be relieved by frequent bathing of the mouth of the vagina, or in the non-pregnant condition by means of a douche with some mild disinfectant in the water.

*Pruritus*, or itching of the external genital organs, is sometimes the troublesome result of leucorrhœa. But it may be present when leucorrhœa is not, being caused also by nervous disorder and by over-acidity of the blood. The itching may be relieved by frequent washing of the parts, by the intelligent use of the sitz-bath,



and by the application of a little antiseptic ointment, such as boracic acid and vaseline or carbolic or ichthyol ointment. When severe, it should be professionally treated.

A *cough* during pregnancy can be exceedingly troublesome. "Generally spasmodic in character and nervous in origin," it is but little affected by the ordinary cough medicines, and it usually ceases of its own accord after the confinement. Owing to the fact of breathing from the diaphragm being sometimes interfered with during the latter months of pregnancy, the cough may have its origin in, or may be affected by, conditions brought about by the unused lower part of the lungs. There are various drugs prescribed for it which are occasionally successful. A determination on the part of the sufferer to check it, to refuse to give way to it whenever possible without straining herself, can frequently be of extraordinary use in its extinction.

*Varicose veins*, due to the changes caused in the circulation by the increasing weight of the uterus, are occasionally a source of some trouble. When they are present in the lower limbs, or when they cause swelling in the external genital organs, they can be more or less relieved by resting frequently in a recumbent position, and by the use of an elastic stocking or bandage and of an abdominal belt or support. This ailment is more common in subsequent than in first pregnancies.

*Fainting*, either partially or completely, due



to the strain on the system, is an occasional symptom—disagreeable, but not dangerous unless there is heart-disease, which is not usually the case. The patient should lie down in a horizontal position, have her face sprinkled with water, plenty of fresh air admitted, any tight clothing undone, smelling-salts applied to the nostrils, and a teaspoonful of sal volatile in a wineglassful of water taken if possible. Sometimes when the feeling of faintness first begins it can be checked by bending the head down as low as or lower than the knees, so that there is a rush of blood to the head. (This, of course, must be done in a careful and convenient manner.) In cases of fainting fits following one another in quick succession, it is best to send for the doctor.

*Painful stretching and rigidity of the skin of the abdomen* can be prevented to a great extent, or relieved if already present, by gently rubbing round the abdomen with a little glycerine or olive-oil two or three times a day. When this habit is begun early in pregnancy, as it ought to be, the skin becomes elastic and healthy, and little inconvenience will be found from what may otherwise prove a troublesome condition. A little eau-de-Cologne may with advantage be added to the oil.

*Palpitation*, when present only in pregnancy, is of little importance. It is caused by indigestion or by pressure of the uterus on the large bloodvessels, these in turn affecting the heart. A little sal volatile will usually check it.

*Irritability of the bladder*—which creates the frequent desire to relieve it—is a common symptom, said to be most frequent in the earlier months of pregnancy. Sometimes a doctor is able to check it, but usually there is little that can be done. The weight and size of the uterus pressing against the bladder, especially in the later months, may cause it—in fact, it is almost always a sympathetic condition, and ceases at childbirth.

*False pains* sometimes occur, especially towards the close of pregnancy. Digestive disturbances, in the large majority of cases, are the cause of them. When this is so they are mostly relieved by castor-oil or similar medicine. They may also be due to neuralgia, rheumatism, colic, or inflammation. False pains can be distinguished from the true ones by the signs observed when a hand is laid on the abdomen ; in the true pains of labour the uterus can be felt to contract and grow hard under the hand, but in false pains it does not alter its position or condition.

*Retention of the urine*, a complaint likely to prove serious if neglected, *rupture*, *diabetes*, *jaundice*, *paralysis*, and other less common conditions should receive prompt medical treatment.

## CHAPTER X

### THE SEX OF THE BABY

"With the growth of knowledge our ideas must from time to time be organised afresh. The change takes place usually in accordance with new maxims as they arise, but it always remains provisional."

"There is much that is true which does not admit of being calculated; just as there are a great many things that cannot be brought to the test of a decisive experiment."—GOETHE.

OF the countless ancient and modern theories of determining the sex of the child there are few worthy of serious consideration, and not one which can be declared infallible. Each individual case may be controlled or influenced by conditions which, in an apparently similar case, work entirely differently.

The sex is sometimes thought to be already present either in the male spermatozoon or in the ovum before impregnation, or it may be determined at the time of impregnation itself when the male and female elements unite. According to other theories, the question is de-

cided by various external and internal causes occurring during the early months of pregnancy.

The opinion is held by many that the diet of the mother, for a few months before and after conception, influences the sex, though, unhappily, the question as to what that diet should be is a much vexed one. On one side it is believed that a nourishing and liberal diet, suited to the needs of the individual case, will assist in developing a well-nourished ovum of the male sex, while a meagre diet, with a consequently poor and ill-nourished ovum, will probably produce a girl. On the other side the diametrically opposed view is held that in times of plenty more girls than boys are born, and in times of adversity, when living is hard and diet scanty, the number of boys predominates. Thus in the siege of Paris, when the shortage of food caused the direst distress, many more boys than girls were born. Also, this latter opinion receives confirmation of a sort from some of the lower forms of life. Thus, from the caterpillars of butterflies and moths when fed scantily before the chrysalis stage, more males than females are developed, while others of the same brood when fed on a highly nutritious diet show a decided majority of females. Experiments with tadpoles and aphides, or plant lice, are said to show usually the same result. But again it must be remembered that the comparison between these lower forms of life and the higher mammals may be valueless; for in the latter,

which of course includes and concludes with man, the male is usually of greater size than the female, while in many lower forms the female predominates in size. Thus the theory of the well-nourished ovum developing into whichever sex in the species is of the larger size (and so in the human species developing into the male) has further evidence in its support.

Heredity may have something to do with the determination of sex, as it certainly seems to have in the predisposition of some women to bear twins.

According to one theory, sex depends on the time at which the ovum is impregnated. Thus, when conception occurs during the first few days after menstruation the probable result will be a boy, but when conception does not take place until later in the month—until after the ninth or tenth day following menstruation—a girl is the more frequent result. According to this, a woman who desires a girl should endeavour to begin her pregnancy during the four or five days immediately before menstruation is due, while if a boy is desired conception should occur during the eight or nine days following the last day of menstruation.

But in the theory of Professor Thury these injunctions are exactly reversed, a boy being said to be the result of conception occurring immediately before menstruation, and a girl when conception occurs within the eight or nine days following menstruation. And so it would

follow, according to this theory, that a boy baby might arrive later than the date expected, because this date is reckoned from the last day of the last menstruation—when conception is usually presumed to have occurred—whereas it might have occurred during the few days before the next menstruation. (Menstruation, when immediately following conception, may merely last for one day or half a day, or be entirely absent.) This latter theory is presumably founded on the belief that an ovum is not fully ripe after menstruation until the end of the month, and that from an immature or insufficiently ripened ovum a female is born, while the fully-developed and ripened ovum produces the male sex. In a few women every ovum might possibly be ripe, and boys only the consequent result, and *vice versâ*.

But the fact of a fully-ripened ovum developing into the male rather than into the female sex is by no means proved, many medical men believing that no ovum leaves the ovary until fully ripe. And it is at any rate certain, although it may be partly caused by other influences—such as the slightly increased size of the male to the female foetal head (the difference in size of the head being to a certain extent a probable question of some such condition as race or culture as well as of sex), that boy babies are notoriously harder to bear and more delicate and more difficult to rear than girls, in spite of the supposed masculine superiority, the

fully-ripened condition, of the boy-to-be ovum at its fertilisation.

It is sometimes imagined that the points of the compass or different phases of the moon at the time of impregnation are important in influencing sex ; or the respective ages of the parents—perhaps on account of their bearing on the point of health—is sometimes held accountable. The relative condition of health and strength of each parent is a point to which many attach great importance, but again with exactly contrary views. Some assert that the stronger and healthier of the two, or the one possessing the greater amount of nerve force or vitality, or of sexual capacity, will produce his or her own sex ; while others insist on the theory of cross heredity—that is, that the sex produced is the opposite to that of the healthier and more vigorous parent.

Some people believe that altitude, latitude, and consequently climate, influence sex, and that in proof of this there is a greater proportion of girls born in the hot southern countries and of boys in the colder northern ones. In those parts of the world where polygamy is practised the number of girls is said to predominate, while in other parts where polygamy is the exception rather than the rule the two sexes are more even. If this statement be correct, it may be of use either in showing the influence of climate or in helping to disprove the theory of cross heredity. And every theory which, on investi-



gation, is found to explode brings the problem one step nearer solution.

During the first three months of pregnancy a method believed in by many for influencing sex is that of gazing at pictures of boy or of girl babies, so as to impress them on the mind. The pictures or photographs can be hung in the most used rooms, so that the eye of the expectant mother constantly catches sight of these silent suggestions, and transmits the image of them to the brain. In this same way did the women of ancient days place statues of Hercules at the foot of their beds during pregnancy, in order that their waking and sleeping thoughts, guided by their eyes, might dwell on this mighty man of valour, and that they might consequently bear sons after his image. Sometimes the god Apollo or the beautiful Narcissus were the favoured statues, for, before everything else, the Greeks loved beauty. And the story of Jacob relates how pillared rods were prepared for his sheep to see when they came to drink, so that they might cause a particular impression to be transmitted to their unborn lambs.

It appears to the writer that many instances in royal and in humbler life can be recalled which seem to suggest that the child is more likely to take the sex of the parent who takes the initiative, who is the more dominant, or determined, or perhaps the more selfish.

But, in spite of much investigation, Nature so far keeps her secret of sex unrevealed. The

entire subject of its determination has so subtle an origin and so mysterious a process of development, influenced as it may be by conditions of environment and health at present only dimly imagined, that any practical and reliable knowledge of its working remains still to be discovered.

## CHAPTER XI

### PHYSICAL HYGIENE AND HEREDITY

"Sow an act, reap a habit ;  
Sow a habit, reap a character ;  
Sow a character, reap a destiny."

—W. M. THACKERAY.

"Who care

Only to quit a calling, will not make  
The calling what it might be ;—who despise  
Their work, Fate laughs at, and doth let the work  
Dull and degrade them."—J. INGELOW.

WOMEN, during pregnancy, might be divided into three classes :

1. Those fortunate ones who do not suffer at all, or who occasionally are even better in physical health and disposition than in the non-pregnant condition ;

2. Those who find the function a more or less troublesome and even painful burden to bear ;

3. Those, happily few, to whom pregnancy proves actually dangerous.

It is to be deplored that the first class is as rare as it is desirable in modern civilised

countries, although in other parts of the globe where there are still women born healthy and bred naturally it is the rule to find their pregnancies and confinements easy, and the exception when either of them is severe.

In northern Germany, where many of the women lead hard-working lives in the fields, the writer has herself seen one of them at work as usual a few hours after the birth of her baby, and, according to the information volunteered, this was a common occurrence. The delightful author of "Elizabeth and her German Garden" remarks that it is quite a usual thing to see women "working in the fields in the morning, and working again in the afternoon, having in the interval produced a baby. . . . When I expressed my horror at the poor creatures working immediately afterwards as though nothing had happened, the Man of Wrath informed me that they did not suffer because they had never worn corsets, nor had their mothers and grandmothers."

During the long marches taken by the Indians of North America a woman of their tribe, on feeling the beginning of labour, merely drops out of the ranks and retires to a quiet spot, where her child is born. She then bathes it and herself, rejoins the company, carrying her baby, and continues the march.

Many similar instances might be quoted. *Child-bearing is a perfectly natural function of the female body*, and ought therefore to be per-

formed as healthily and consequently as easily as any other natural function.

Unfortunately, the reverse is the case with nearly every modern woman during pregnancy, the reason being partly traceable to her fault in leading a thoughtlessly or an ignorantly unhealthy life, and partly to her misfortune in being the descendant of unhealthy parents and ancestors. Thus it is that the second class of women—those who find pregnancy a period of much discomfort and perhaps of pain—is so commonly met with. And these are the ones who, if they cannot entirely rise to the happy degree of individual and inherited health of the first class, still have it in their power to do much, extraordinarily much, to help themselves and their children, *provided they will take the small amount of trouble necessary to learn and to practise how to do so.* The women of the third class also, by exercising a little similar thought and trouble in their lives before and during pregnancy, can do very much for themselves in hindering the progress and in lessening or altogether avoiding the consequences of disease.

From the moment that pregnancy is suspected, it is the bounden duty of every woman to take intelligent care of herself, to strive by every means in her power to secure for her baby its birthright of health. And it is the bounden duty of her husband to see that she does so, and to take intelligent care of her himself. Even

if he inexcusably neglects his duty, it does not relieve his wife of her share of responsibility ; indeed, she has then even greater need of courage and will-power, being cheated out of the helpful and affectionate companionship which she has the natural right to expect.

When she thinks of the terrible consequences in which indifference, carelessness, or ignorance may result, and how she may, perhaps through her own fault, bear a cripple, or an idiot, or criminal—that is, a mental or moral cripple—it behoves her to think and to act as a rational human being.

Woman has been the cradle of the human race down through all the ages, and just what that race will be depends in a very responsible degree on each and every woman of this and of future generations. And her happiness and general well-being, and consequently that of the future man and woman, depends in an equally important degree on the father of the child. In the dark days of woman's existence, when her position was that of a slave or a chattel to man, when her lord, by brute force, reigned supreme—days still lingering in some parts of the world—the responsibility rested on the man's shoulders, the cradle of the human race was after his making. But in so far as woman finds the conditions of her life most happily and rightly liberated and widened, in just so far does she move that twofold responsibility, lessening that which the man has carried, but vastly

increasing her own share of it, until the burden is borne wellnigh equally—as it ought always to be, without doubt, in a proper state of society.

It is a grave thought that the child who is gathering life from its mother's life, the new spirit on whom she is grafting her own spirit, is a future power for good or for evil. In her hands is that power, that force, first moulded which in after-life shall rise up to curse or bless her.

For the many women who have every opportunity of living healthy and noble lives, and who yet live riotously or indifferently even during the time of pregnancy, there can be little, if any, excuse, and there will be appropriate punishment. There are other women who, during pregnancy, find it impossible, through no fault of their own, to be able to carry out the laws of health, who find the struggle for existence, or the demands made on them in daily domestic life, almost more than they can cope with. The heart only knows its own bitterness ; yet in the face of difficulties it is the brave woman who gives them battle, overcoming them at last by the persistence and power of her courage, doing her utmost cheerfully, and thus bearing brave sons and daughters in spite of the odds against them through the life she had no choice but to lead during pregnancy.

Out of pure selfishness, if from no higher motive, should an expectant mother take care of herself. It is so much to her own gain, and



incidentally to her baby's, to do so. When, however, she is unselfish, as most women are, and when this merciful quality is tempered with justice, which is not invariably the case, her first thought will be for her helpless, unborn child ; and so, by living for its welfare, she will unconsciously be living in the best way possible for herself. Thus, in either case, that which is good for the one is most happily and naturally good for the other.

The three necessary things for the growth of any animal or plant-life are, as every one knows, *good seed, good soil, and good care*. Good soil and good care are necessary to the best seeds for their proper development, and can do much for inferior ones, just as the possession of good health and the care of it can do everything in rightly and grandly developing the healthy seeds of human life, and in raising and improving the indifferently unhealthy or inferior seeds. Certainly "drudgery is the grey angel of success,"<sup>1</sup> but even the hardest work and the best soil are useless in propagating the thoroughly diseased and corrupt seed. Therefore such a seed should not be planted until the source from which it comes has had the means and the time to grow healthy throughout.

The proper care of the body during pregnancy means attention to diet, to the need of exercise and rest, to internal and external bathing and cleansing, to clothing, to the proper treatment

<sup>1</sup> Gannett.

of marital intercourse, and to the strengthening of the baby's first means of sustenance—the breasts.

1. *Diet*.—The diet must be simple and nourishing, good in quality and moderate in quantity. The old idea of the necessity of “eating for two,” or eating at all immoderately on account of the extra demands on the mother's vitality, is now known to be a mistaken one. Extra demands are made on the mother's strength in every direction, but she cannot satisfy them by overworking any particular organ, for this merely disorders that organ, and so throws the rest of the complicated human machinery out of gear. The body is bound to require, now more than ever, sensible attention to health generally, and to those organs in particular which have most need of being kept in working order, or of being specially strengthened for their work.

When pregnancy occurs, the three things a woman hopes for are : good health during pregnancy, an easy confinement, and a fine baby. The second of these good things is no longer a matter of such momentous importance as it used to be, thanks to the discovery of anæsthetics and to their most beneficial use at these times. Still, in spite of this, there are many women who would be relieved to know how they could best secure an easy confinement. Their apprehension may be raised by the fear that a difficult confinement might injure not only

themselves, but their offspring ; or they may possess a narrow, misshapen pelvis, or a weak heart—in which case chloroform or ether, if given at all, would have to be administered with care. So that although useful to all, the following advice on the mother's diet may be of special service to such women as these.

The importance of the right kind of food can be seen at a glance, for not only is the mother sustained by it, but the child's body is created, is built out of it. Thus it follows, according to many people, that when the mother-to-be eats food containing a very large quantity of phosphate of lime or other bone-forming matter, the bones of the child become unnecessarily developed and hardened, and the confinement is proportionately severe.

During pregnancy fruit should be the staple article of diet, eaten either raw or stewed as often as is possible for the individual—if with and between every meal, and on rising in the morning and retiring at night, so much the better. If a disinclination for it should be felt sometimes, the juice of it alone can be taken. The juice of one or two oranges and a lemon can be taken mixed together on rising in the morning, followed by a breakfast consisting of more fruit, such as roast apples or stewed prunes, with a little bread and butter, and perhaps followed by fish or an egg. Poultry, or the meat of young animals, vegetables, such grains as rice, tapioca, and sago, cheese, and butter may also be taken.

Filtered or distilled water, the juices of fruits, various nutritive broths, with cocoa, tea, or milk in moderation, are the best drinks during pregnancy.

Of the bad effects of too much tea-drinking, one well-known writer says: "The *Lancet* several years ago, from an editorial analysis of the effects of tea-tipping, took the position that in no small degree nervous symptoms occurring in children during infancy were due to the practice of the mothers, both working and society classes, of indulging in the excessive use of tea, the excess being judged by its effects on the individual and not by the amount taken. Convulsions and resultant infantile paralysis were frequently noticed among the children of these tea-tippers. . . .

"It is evident that tea produces a grave form of neurasthenia, regularly transmissible to descendants. In addition to its effects directly on the nervous system, tea tends to check both stomach and bowel digestion, and thus increases the self-poisoning which is so prominent a cause, consequence, and aggravation of these nervous conditions. . . . Coffee exerts a very similar action to that of tea, albeit the nervous symptoms produced by it are usually secondary to the disturbances of the stomach and bowel digestion. Coffee produces tremor, insomnia, nervous dyspepsia, and helmet sensations." <sup>1</sup>

Speaking of the usual poisoning causes which

<sup>1</sup> Dr. E. S. Talbot, in "Degeneracy."

influence degeneracy, the same author states that "tobacco is the most common of these, while alcohol and opium contend for second place both as to use and as to deleterious effects. Alcohol has been repeatedly charged with being *the* factor in degeneracy. . . . Careful medical researches have shown that alcohol produces a nervous state, closely resembling that induced by the contagions and infections, often accompanied with mental disturbance (delirium tremens and acute types of insanity)." Opium is even more dangerous than alcohol.

Any relaxation of the bowels which may be caused by the gradual and increased use of fruit will soon lessen, especially when such a corrective as rice or arrowroot is eaten. A diet must always be changed gradually, so that the system has time to become accustomed to it.

2. *Exercise and Rest*.—Proper physical exercise is necessary to health all through life, and particularly so through the period of pregnancy. It is forbidden only in very exceptional cases of weakness or disease, when movement might cause a miscarriage. Even in such extreme cases a little Swedish drill or else massage is generally advised.

By *proper* physical exercise is meant the right amount and the right kind suited to the individual case. Since no two women are alike, the quantity and the quality of exercise taken easily by one might prove disastrous if attempted by another, even if under apparently similar

circumstances. So it is necessary for every woman to use her common sense in deciding what constitutes proper exercise for herself. Supposing she is weak, or inclined to have a miscarriage, especially during the earlier months—and, according to some doctors, during the seventh also—she must make a point of resting more than usual at each of those times in the months which would have been, under non-pregnant conditions, a menstrual period. If she be a woman of average strength and health, she will find it a good plan to adopt a habit of regular exercise, and to follow it all through, more or less, increasing it gradually if desirable, and lessening it somewhat towards the close of pregnancy to suit her convenience. Housework, for example, can frequently be performed up to the last provided such mistakes as overreaching, lifting heavy weights, and jumping are avoided.

For the natural process of childbirth many muscles are pressed into service, and when they are strong and capable, in good working order, the confinement will necessarily be easier, and the regaining of strength afterwards will be quicker. Allowed to grow flabby and weak through too much rest being given them, or through overwork, these muscles become unable to fulfil their duty of assisting the baby in being born.

Too much rest can be given to them in two ways ; in the first place, by the mother resting herself more than is necessary through laziness,



inertia, or through a mistaken idea as to what is best for herself and her child ; and secondly, by her wearing artificial supports, for these usurp the work of some of the muscles, throwing them out of their natural employment, and so weakening them. Such usually injurious supports are boned high corsets and belts, and tight-fitting contrivances generally, which should all be avoided as much and as long as possible during pregnancy.

In the condition of the muscles can be seen the reason why working women so frequently have infinitely lighter confinements than women of ease and indulgence. During pregnancy there is no finer exercise than walking. The more it is indulged in, without over-fatigue, the better. Much good may be derived from short, easy walks, taken two or three times a day, with the consequent breathing of fresh air, and, if possible, the beneficial presence of calm, pleasant thoughts. Those women who have their time and energy used up by housework should, while so engaged, breathe as much fresh air as possible all day—and certainly all night. If too fatigued by their work to walk, they can at least rest out of doors instead of indoors, in the reclining position as much as possible, with feet well raised, and with sufficient clothing to keep them warm.

Driving, when taken comfortably without jolting, is a very mild form of exercise. Of much benefit generally, it is not in itself sufficient



exercise during pregnancy, and so should be supplemented by walking or domestic work, or other exercise, for all women of average health.

There are certain exercises which may be mentioned here, and with benefit be practised during pregnancy by those with weak muscles, *if they are performed with gentleness and moderation*. They not only strengthen the muscles used during childbirth, but they bring them under control, so that on occasions when it is desirable excessive prominence of the abdomen can be somewhat lessened. By a slight effort of the will, the strengthened muscles can be made to support and grip, as it were, the weight against them, instead of relaxing and therefore enlarging it. For the exercises it is best to use a sofa or bed raised at the foot, so that when lying down the head is lowest and the body slopes up to the feet. A strap or bandage should be slipped over the feet to prevent them from moving, and to assist in lessening the strain on the muscles. Lying flat on the back, with the feet so fastened down, and with the hands stretched straight down on the thighs, the head and body should be slightly raised from the hips and inclined to the right side, then lowered on to the bed again, and raised and inclined to the left side. This movement should be repeated a few times. Then, starting from the same position, the head and shoulders only should be raised slightly towards the ceiling and lowered again. In the third exercise the

position is altered to one of lying flat on the face, the feet still under the strap, and the hands together in the middle of the waist at the back ; the head and shoulders should then be raised slightly upwards and backwards. Then, while lying first on the right side and then on the left (instead of, as in the last exercise, flat on the face), the body should be raised from the hips upwards, with the under arm always assisting by pressing against the bed.

These exercises, repeated as often as convenient, will be found of use not only at this time, but whenever there is weakness of the female generative organs. With any of these, or of others, it is most important to remember that no straining or fatigue must occur. The exercises should be at first merely tried without any appreciable effort, and only very gradually and easily practised afterwards. Any one of them which is at all trying should be discarded altogether. Also it is necessary to remember that *they must not be suddenly or vigorously taken up during the latter months*, but gradually and sensibly performed from the early ones.

It is highly important that all indoor exercise should be taken in a thoroughly well-ventilated room—a room filled with a continuous current of fresh air and, if possible, with sunshine.

During the earlier months healthy employment and exercise may be obtained by gardening—"that purest of human pleasures," says Bacon. But digging, watering, and other heavy

work are best left alone. Horse-riding, hockey, treadle-work of any kind, and every other vigorous form of exercise should usually be given up. Tennis, dancing, and cycling are highly injurious to some women, and after the fourth or fifth month to all women during pregnancy.

When possible, short rests should be taken at intervals during the day. To obtain as much benefit as possible from resting it is necessary to lie down properly. After the midday meal it is especially beneficial, even if it be only a short rest of fifteen or twenty minutes. During the last two or three months this necessity of resting becomes more frequent, and it will generally be found also that less exercise can be taken because of the quicker coming of fatigue. All through pregnancy it is important that early hours of retiring should be kept. Late hours and overheated rooms injuriously affect the healthiest body. Rest of mind as well as of body is imperative, and anything which interferes with it—which leads to excitement or over-fatigue of the brain—must be avoided.

It is always well to take no unnecessary risks during this period, since the results of injury or miscarriage may prove so disastrous, and since the strength and capacity of every woman is unknown until put to the test. To bicycle, play hockey, or do any other venturesome thing merely because one woman has been known to do so, with no apparent ill-effects to herself or her child, is as puerile as it is dangerous.

3. *Bathing*.—Bathing, like eating, exercising, and everything else, must be suited to the individual. Because one person with good circulation and vitality can plunge into a cold bath, it does not follow that any other doing likewise is bound to feel the same beneficial pleasure afterwards. The results may be, indeed, anything but pleasurable and the reverse of beneficial. So much depends on habit, on that which a person is accustomed to, or brought up to, that the necessary degree of care in installing a new and perhaps a vigorous practice must always depend on the individual strength. Especially is this so in pregnancy.

The great importance of cleanliness as a means of ridding the body of impurities—by washing the millions of pores or sweat-glands which open on to the surface of the skin, and by carrying off all waste matter—goes without saying. It can also be taken for granted that a woman of ordinary intelligence will perceive the special need for cleanliness during pregnancy. She should be more particular than ever in thoroughly cleansing the body every day. To do this a bath is not necessary, although it is of course preferable. As a substitute for it, a basin of water and a wet, rough towel, with which to rub the body all over, is to be by no means despised. When a woman is strong enough to feel a healthy glow after a cold bath, there is no doubt of its beneficial effects on her. But any shock is best avoided during

pregnancy ; and so if one should be felt owing to the coldness of the water, it is better to have it a little less cold. Tepid or warm baths are not so strongly invigorating, but are sometimes better in cases of bad circulation and delicacy.

Hot baths should at this time be indulged in sparingly by most women, as they tend to weaken and relax the system generally. Especially should they be few and far between and short in duration when there is any tendency to a miscarriage. Short baths in the sea, to those accustomed to find pleasure and benefit in them, can be taken during the earlier months in warm weather. When very strengthening sitz or full baths are necessary, cold, tepid, or warm ones of salt water may be taken.

After the daily entire washing necessary for cleanliness, the use of the sitz-bath comes next in importance. Of the great benefit derived from this, especially during pregnancy, there can be no doubt. Every woman should know how to take such a simple bath, and when she has once given it a fair trial she will be surprised that the benefit of it is not more widely known. For use during pregnancy, the bath or tub should be raised a little off the ground, and the water merely sufficiently deep to cover the hips when sitting in it. Tepid to begin with, a little more cold water can be added every time, until it will be found that in a little while a cool or quite cold bath can generally be taken. It is necessary to keep the rest of the body

warm and covered. The baths should be short ones, of two or three minutes at first, and can gradually increase in length of time as they decrease in temperature. Those unaccustomed to them will be surprised to find how mild they are, compared to the ordinary cold full bath.

During the sitz-bath the back, sides, and abdomen should be gently rubbed. When a bath of from ten to thirty minutes can be taken, the water can be changed once or twice as the heat of the body makes it too warm. If the longer and colder sitz-baths cannot be taken comfortably, *short tepid or cool ones are much better than none at all*. When the weather is cold it is well to take them in a warm room. The best time is on retiring to bed at night. The worst time is shortly after a meal, when the stomach, engaged in digesting the food, should be left undisturbed; for if the blood, which should be helping it, is drawn off to the skin by the action of the water on the surface of the skin, indigestion is bound to occur.

The glow and relief felt when in bed after such a bath, with the contented knowledge of the good it has done and is doing, will be found to repay amply the trouble involved in taking it. When such feelings are not experienced afterwards, some point in the manner of taking it is at fault. It must always be suited to the recuperative power of the bather, never any longer nor any colder than she feels is easily bearable at the time and comfortably beneficial afterwards.



Not only are sitz-baths of special service during pregnancy, but they are of much use at any time in relieving and generally helping to cure many diseases of both sexes.

4. *Clothing*.—The whole art of being well dressed consists in being suitably dressed—that is, as the occasion demands and as the individual requires. A garden-party frock on a shrimping expedition, or a corset under a gymnasium dress, would be so conspicuously out of place that it would stamp the wearer at once as being devoid of good taste, of culture, to say nothing of sense. The same unsuitability would be shown by a woman with a bad figure wearing a tightly-fitting dress ; or during pregnancy by any woman continuing her usual mode of dressing, striving to preserve a neat waist, when her common sense (if she can be said to possess any) warns her that she is acting against Nature, when her conscience pricks her with the thought that another human body besides her own may suffer for her stupidity, and when her efforts to deceive her neighbours prove utterly and ridiculously useless, as they so frequently do. Because such conduct is of common occurrence, it is none the less entirely disgraceful.

The sooner the corset is given up after conception has occurred, the better it is for the baby and for the mother. Certainly the high, stiff-boned and very often tight kind in which so many women encase themselves should be absent



from the clothing after the third month at the latest. If the clothing is loose, as it ought to be, the corset will not be conspicuous by its absence in any objectionable way—indeed, it would be a hundred times more conspicuous by its presence, in showing up the stupidity and useless pretensions of its wearer. By her appearance a woman reveals so much of herself, whether she will it or not.

Many people are crippled in mind or body, or both, through the idiocy of their mothers in tight-lacing during this period. Expectant mothers, through thus behaving—sometimes actually up to the last month—may be punished by terribly severe and complicated confinements, and may sow the seeds of some dreadful disease. In cases of cancer of the breast it has been authoritatively stated that twenty-five out of every hundred of them are due to tight-lacing.

Those who have become dependent on corsets will find at first on giving them up that back-ache, caused by muscular weakness, may be felt. However, this soon disappears as the muscles gradually gain strength, after their long, unnatural rest, to perform their own work of support which had been usurped by the corset. If it should be found that a support of some description should be necessary, there are various hygienic stays or bust supports which will unlace or expand to suit the growing requirements. When there is much expansion and weight, a shaped belt or band, worn around the abdomen

so as to aid in supporting it, may be found useful. Suspenders on the stays should hang from each side, and not from the front ; garters, which restrict the flow of blood, should never be worn at any time, and are particularly to be forbidden during pregnancy. If the garments can be made to hang from the shoulders as much as possible it is all the better. The strain and weight of them around the waist and on the internal organs are thus avoided. High-heeled boots or shoes with narrow pointed toes increase the strain on the legs and feet, throw the whole body out of its proper poise, and are especially harmful to the internal organs. Woollen garments should be worn next to the skin.

Because of the sympathy known, and very soon felt, to exist between the condition of the uterus and the action of the mammary glands, all tight clothing across the chest must be avoided.

History relates how highly necessary the ancient Greeks and Romans deemed loose clothing for women who were pregnant, or *enceinte*, for they passed laws actually enforcing the matter. In the many hundreds of years that have passed since their time the best of man-made laws may change and be forgotten, but those of Nature remain fixed and unalterable. And it is a rash person who is willing to break them and to take the risk of being broken in turn by them. The very meaning of the word at present so much used, *enceinte*, is "un-girdled."

There are all descriptions of maternity gowns, of loose-fitting, simple morning ones, and of graceful tea-gowns, which can be bought or inexpensively made at home. These should hang from the shoulders or yoke, and if made to unfasten as low as the waist only—not down to the hem of the dress—they have the appearance, under a loose coat, of an ordinary skirt. They show the condition of the wearer much less than the ordinary costume with a waist-line.

5. *Intercourse*.—This is a much vexed question, depending as it does on the point of view from which it is looked at. Those who cannot climb at once to *the* highest and see the clearest can at least climb to *their* highest, and both aspects are herein viewed.

Individual cases must be studied on their own merits, but the sexual separation of husband and wife during the period of pregnancy is, as a general rule, as highly desirable as it is uncommon. A man who truly desires the best for his wife and unborn child will take care that they shall suffer in no way through his conduct. When, however, gratification predominates injuriously, and especially injuriously during the latter months, the wife should endeavour to refrain from any participating feeling, because the indulgence of such feeling on her part may prove harmful to the child. Immoderation on the part of either may injure the child's physical growth and influence its character. The woman must remember also

that by other than passive participation she is using up that vital energy of which she possesses only a certain amount, and which at this time is generally needed in another direction. Child-bearing is a great work, and consequently makes great demands on the health and strength of any woman, so that however much vitality she may have to spare at other times, she can afford to waste very little of it during pregnancy. Immoderate and careless intercourse is known to be one of the commonest causes of miscarriage.

Many doctors, when asked their opinion on this question, do not hesitate to tell their patients that they can "continue as usual," knowing probably that it would be useless, and might be undiplomatic, to give any other advice. Other doctors state their strong disapproval of such a course. Dr. Kellog quotes an eminent authority on the diseases of women as stating that, "if any obstetric authorities give their passive or implied consent to intercourse in pregnancy it is like the story of Moses' concession to the hardness of human hearts."

Since, therefore, some hearts are still very human, and some mental and moral digestions very weak, it may be well to water the cream of advice already given down to the following rules, so that part of it at any rate may be assimilated.

1. Intercourse must never occur when there is any threatening or likelihood of miscarriage,

nor for at least one month after a miscarriage has taken place.

2. In the majority of cases it should also be avoided at what would have been, in the ordinary course of events, a menstrual period. Miscarriages are always more possible at these times than at others, just as a confinement itself will usually occur on or about the date in the month which would have been a menstrual period.

3. Whenever it occurs, special care, and very cautious participation on the wife's part, are necessary, so that the uterus shall not be affected.

4. When a miscarriage has occurred in the first pregnancy, every precaution should be taken to avoid a recurrence of this, and in many cases one of the greatest safeguards is the avoidance of intercourse during pregnancy.

5. Towards the close of pregnancy, during the last two or three months, there can be no question of the continuance of intercourse. Every natural feeling of decency and consideration forbids it.

Over-indulgence produces effects which are truly appalling. It has already been noticed what the probable consequences of such conduct are to husband and wife. To the unborn babe, at the mercy of its parents, these consequences may be no whit less disastrous. It is said that a predisposition to epilepsy and other terrible diseases is sometimes produced in this way. To

take risks in the attainment of our pleasures, with our eyes open, with the knowledge that the punishment will be meted out to us only, is one matter ; but to take such risks when a helpless human being may suffer as well is quite another—it is an outrageously cowardly act which we have no right of any kind to commit.

The belief that intercourse, except under the most moderate and natural conditions, can be of any use in any way during pregnancy is as ridiculous as it is unwarranted. The subject is worthy of intelligent consideration by each husband and wife ; and in so far as in them lies (in him more particularly, because in this instance it is he who is the more usual sinner), they should first grasp the principles of healthy life before they can worthily reach to the heights and share the responsibility of participation in creation.

6. *Breast Attention*.—Because pain in the breast is known to be one of the worst pains possible for a woman to bear—as all who have suffered from it will testify—the treatment for hardening and strengthening this part should be carried out regularly, whatever else is neglected, for some months before confinement. All through pregnancy changes are taking place in the breasts to prepare food for the nourishment of the baby. While they are giving out a constant supply of nourishment, the strain on them, and particularly on the nipple, is some-



times severe, so that it is necessary for them to be in an especially healthy and firm condition if they are to bear it. Even when they have been treated rightly, it is sometimes difficult to keep the nipples free from soreness. Tightness across the breasts, or pressure of any kind on them, is most injurious. All clothing must be gradually altered to suit their condition.

From the fifth or sixth month the nipples should be bathed with eau-de-Cologne or lavender-water, mixed with an equal part of olive-oil or glycerine ; or a solution of alum and borax in whisky may be used. They should be gently drawn out by the fingers every day, and the mixture applied to them morning and night ; the breasts as well may be gently sponged over with it. The skin of the abdomen should be gently rubbed with it also, to render it firm and elastic.

By such treatment before confinement, cracks and abscesses are guarded against as much as is possible. In a first pregnancy especially attention to this subject is necessary.



## CHAPTER XII

### MENTAL HYGIENE AND HEREDITY

"But you—had you chosen—had you stretched hand,  
Had you seen good such a thing were done—  
I too might have stood with the souls that stand  
In the sun's sight, clothed with the light of the sun.  
I had grown pure as the dawn and the dew,  
You had grown strong as the sun or the sea."

—SWINBURNE.

"Happy lie  
With such a mother! faith in womankind  
Beats with his blood, and trust in all things high  
Comes easy to him, and though he trip and fall  
He shall not blind his soul with clay."

—TENNYSON.

ALTHOUGH the power of *mind* over *matter* has now become better known to the people of the Western countries, the immeasurable possibilities of this power are but vaguely imagined by the majority, whilst perhaps still more never give the subject two consecutive thoughts. That the state of the body can affect the mind is a truth so well known that it has ceased to appear wonderful. "Custom has a knack of persuading

us," says Carlyle, "that the Miraculous, by simple repetition, ceases to be Miraculous"; or, as Maeterlinck puts it, "after a time astonishment becomes so habitual with us that we almost cease to wonder." But the power of the mind in illimitably influencing the body appears a much more wonderful truth to those who think about it.

Is it not marvellous that an ordinary act of thought can produce such an actual physical result as blushing or turning pale? Through the nerves, which are the link between spirit and matter, the brain telegraphs its message to the muscles which regulate the arteries. The act of weeping, the physical nausea that fear can cause, the irrepressible laughter which can result from a merry thought, the weak body that by intensity of thought is carried heroically through some physical ordeal—all bear witness to the conquest of spirit over matter.

Thus, if common acts of thought can have such physical results, it is no more (since it merely carries the process a step farther) and no less marvellous that extraordinary acts of thought can produce, by their intensity, extraordinary results.<sup>1</sup> And that extraordinary results seem rare nowadays must be owing to the equal rarity of sufficient concentration of thought, of mental intensity, by which they are brought about.

<sup>1</sup> Viz., *stigmatisation*, the truth and cause of which the schools of Nancy and La Salpêtrière have proved.

It is well known that a man can frighten himself into the particular disease he is seriously anxious to avoid. Thus, one whose mind is full of fearful thoughts that he will develop consumption may be even more likely to develop the real germs of this disease than the man who directly inherits a consumptive tendency, but who lives healthily and hopefully.

A woman, by indulging in a violent fit of anger shortly before or during the time she is nursing her baby, can cause such a change in her system that her milk is turned into rank poison for the baby. The change in the nervous system which is produced by passion, or by other less acute feelings, is felt throughout the whole body ; and after such feelings have been aroused, it takes considerable time before the body can completely recover from the absorption of the harmful influences, before the physical effects caused by the feelings work off, and the normal state is regained. Laughter is a cheap medicine, cheerfulness during meals is a real aid to digestion, while anger or bad temper, by contrarily affecting the juices of the digestive organs, is just as real a hindrance.

So it is easy to see the paramount importance of keeping in good spirits, especially in the case of pregnancy, for then the image of the woman's mind, whether she wills it or not, is reflected in that of her child.

For the first four or five months of pregnancy it is generally possible, and—provided she be

living sensibly—desirable, for a woman to continue more or less her usual mode of living. Just such changes as her condition requires must of course be made, such as the avoidance of excitement, over-fatigue of brain or body, and violent physical exercise. But to shut herself in, as it were, to curtail all her pursuits and her services to others, to mope and fidget over herself, is as unnecessary as it is harmful. There is no reason why she should lose her interest in matters outside her own condition, although this particular state claims her first attention. In these enlightened days she will know that there need be no cause for apprehension or fear concerning her confinement, which, if she live healthily, is so soon over, and so little to be dreaded, thanks to the now general use of chloroform and other beneficial aids.

She must remember that labour is, under healthy conditions, *a natural bodily function*, and is always decidedly assisted and lightened through the happy conditions brought about by keeping a cheerful and peaceful mind, apart from the good effect such an attitude has on the child itself. The expectant mother must try to banish depression, and to allow as little as possible to worry or disturb her. When any gnawing, disturbing thought enters her mind it must be promptly turned out and its space filled with happy or peaceful ones, so that there is no room for it.

It needs firm resolve and constant practice

to be able to order one's thoughts to one's conscious and deliberately reasoned liking, but *it can be done*. Little by little the mind can be trained in its duty of obedience to the will ; and, in the same way that practice makes perfect, so the habit of cultivating kind and beautiful thoughts builds up a noble mind, not only in the mother, but, to a very important degree, in the unborn child as well.

In anything it is the first step that costs, the first attempt that is the hardest ; after that one, each succeeding step is easier, whether it be uphill or down.

So also this truth naturally applies to thought development. First of all, the will resolves that the mind shall think certain thoughts—good, healthy thoughts. Man is, so Schopenhauer says, one-third intellect and two-thirds will ; so if the well-directed will be strong enough, the mind obediently, and at first with more or less of an effort, follows its master's lead and fills itself with beauty ; and such a state of mind is bound to have a correspondingly good effect on the body. The second time that the will issues its commands the mind obeys with less resistance, and before long it grows so accustomed to obedience that the particular thoughts that have been consciously, and at first perhaps laboriously, encouraged come of their own accord. Like follows like, and habit soon becomes second nature. Thus, after a short time, it becomes unnecessary for the will to

trouble to command. It becomes unnecessary because the mind has grown so used to filling itself with the thoughts to which it has been forcibly guided by the will, that it positively prefers them to any other kind, and so it has ceased to need direction in the choosing of them.

For by thinking beautiful thoughts repeatedly, a little track or channel, as it were, is worn in the brain, an actual physical effect is brought about, which acts as an open door to the entrance of other similar thoughts. Through it they pass eagerly of their own accord ; they need no encouragement to visit their kith and kin. When bad, ugly thoughts come they will find their entrance so difficult, and, if they are strong enough to gain admittance, their reception so chilling, that they will depart to more congenial quarters. However strong the will may be, bad thoughts may enter the mind, may catch it off its guard. Temptations come to all minds, but whether they conquer or not, whether they come to stay, depends on the quality and force of the thoughts they intrude on. As an old divine says, "We cannot stop the birds from flying over our heads, but we can prevent them from making nests in our beards."

In the same way, of course, bad thoughts can possess the mind and mark out an actual physical course, an Open Sesame for themselves alone, so that only by an effort of the will can there lodge in the brain thoughts of another



quality, unless these latter have so much power behind them that they overcome the power of the evil ones. So all through life the mind builds itself up out of the material which matches it, or out of that which is expressly supplied to it by the will. Noble, or ignoble, or a little of each, each spirit must possess within itself the seeds of that which it most desires before ever it can happen that that which it most desires can grow so greatly that it in turn envelops the spirit. "Our heaven must be within ourselves" before ever it can come to pass that we are in our heaven.

When a naturally wayward mind has been so brought into subjection to a consciously powerful and well-directed will, such labour wins a precious reward ; for a useful and increasingly wonderful habit of self-control and of controlling others is thus formed, the incalculable power of concentration, of will, is healthily developing, and the divinity of the spirit is in the making.

Life develops from within. We gradually become like that which we love and think most about—our affections "do form us : and form us in despite of our poor protests" <sup>1</sup> ; and this likeness is bound to be passed on by the laws of heredity to our children. "That the offspring derive from their parents inclinations from such things as have been objects of the love and light of the parents is a truth perfectly well known from history in general and experi-

<sup>1</sup> Lytton.



ence in particular," said Swedenborg hundreds of years ago. Thought is the parent of action. "Man is the creation of thought: what he thinks upon in this life, that, hereafter, he becomes." As men and women think, each one of them, so they act and so they become. And not only this, but thought is also an irresistible force, a power in motion, which travels forth by invisible waves from and to each person, and which so fills the atmosphere with itself. Thus a woman from whom good or evil thoughts are flowing—since flow they must, whether she desire it or not—will attract to herself out of this vast atmosphere of thought-waves surrounding her the same kind of thoughts which inhabit her mind and the waves of which travel out from her. Whether she desire it or not, every thought-wave that travels from her influences other people in proportion to *its* strength and to *their* degree of sensitiveness to it. In this way each creates an atmosphere around her, so that other beings, not necessarily human ones only, on coming into contact with it feel their own thought atmospheres—and consequently their own selves—either attracted or repulsed.

"Beautiful it is," says Carlyle, "to understand and know that a Thought did never die; that as thou, the originator thereof, hast gathered it and created it from the whole Past, so wilt thou transmit it to the whole Future."

There are some people to whom one feels instinctively drawn by a sense of harmony.

With others the sense is lacking, its place being taken by repulsion, or at any rate by indifference, because thought-forces clash on meeting when fundamentally and vitally opposed to each other. The more sensitive the spiritual and mental force surrounding and dwelling in a man, the swifter is he in divining the sense of attraction and repulsion. Some natures can be gradually trained and willed into harmony, but others never. A miser and a noble man, an honest man and an innate thief, a cheap cynic and a buoyant volunteer, could only be bound together in the sympathy of friendship by the one sinking or the other rising to the same level of sympathy.

How to make herself hopeful and happy, or at least even-tempered, is, then, the first consideration of the expectant mother. The steadfast belief in happiness brings its own fulfilment. "All things lovely and righteous are possible to those who believe in their possibility."<sup>1</sup> While she is thus "in partnership with God" in the creating and fashioning of a new life her surroundings should be as pleasant as possible, and all those about her—particularly her husband—should consider it their bounden duty to do all they can for her comfort and health. She has need of all the patience and kindness possible, even if it should happen that she becomes a little difficult to live with. It is not surprising if the high tension up to which she is usually strung during the long months of

<sup>1</sup> Ruskin.

pregnancy should occasionally result in her becoming a little out of tune.

By living a simple, open-air life, however, she will probably be untroubled with hysteria, irritability, and other distempers of an unhealthy mind ; and by the use of a little common sense and self-control, she will resolutely dispense with all uselessly worrying or disturbing thoughts. She will strive instead to collect all the happiness and beauty and love possible. And so gradually this striving will show itself forth in her appearance ; her eyes will sparkle, as Swedenborg recounts did those of an angelic being whom he saw in one of his visions, " from the light of her own heaven."

" Whenever you are sincerely pleased," says Emerson, " you are nourished. The joy of the spirit indicates its strength. All healthy things are sweet-tempered. Genius works in sport, and goodness smiles to the last ; and for the reason, that whoever sees the law which distributes things, does not despond, but is animated to great desires and endeavours. He who desponds betrays that he has not seen it. 'Tis a Dutch proverb that ' paint costs nothing,' such are its preserving qualities in damp climates. Well, sunshine costs less, yet is finer pigment. And so of cheerfulness or a good temper, the more it is spent the more of it remains. The latent heat of an ounce of wood or stone is inexhaustible. You may rub the same chip of pine to the point of kindling a hundred times ;

and the power of happiness of any soul is not to be computed or drained. It is observed that a depression of spirits develops the germs of a plague in individuals and nations. . . . I know those miserable fellows, and I hate them, who see a black star always riding through the light and coloured clouds in the sky overhead ; waves of light pass over and hide it for a moment, but the black star keeps fast in the zenith. But power dwells with cheerfulness ; hope puts us in a working mood, whilst despair is no muse, and untunes the active powers. A man should make life and Nature happier to us, or he had better never have been born. When the political economist reckons up the unproductive classes, he could put at the head this class of pitiers of themselves, cravers of sympathy, bewailing imaginary disasters. An old French verse runs, in my translation :

“Some of your griefs you have cured,  
And the sharpest you still have survived ;  
But what torments of pain you endured  
From evils that never arrived !”

For the benefit of those women who become during pregnancy a burden to themselves and to others, a further passage from the same chapter may be quoted :

“ . . . A virulent and aggressive fool taints the reason of a household. I have seen a whole family of quiet, sensible people unhinged and beside themselves, victims of such a rogue. For

the steady wrongheadedness of one perverse person irritates the best : since we must withstand absurdity. But resistance only exasperates this acrid fool, who believes that Nature and gravitation are quite wrong, and he only is right. Hence all the dozen inmates are soon perverted, with whatever virtues and industries they have, into contradictors, accusers, explainers, and repairers of this one malefactor ; like a boat about to be upset, or a carriage run away with—not only the foolish pilot or driver, but everybody on board is forced to assume strange and ridiculous attitudes, to balance the vehicle and prevent the upsetting."

That the child is influenced by the mode of life of the woman during pregnancy is a belief that is becoming more and more deeply rooted and widely spread ; thus, if she devote herself to any particular branch of cultivation, to any concentrated form of thought, such as music, art, or science, it is more likely than not that she will impress it on her child. In Italy it is to be observed how the children frequently resemble the pictures and statues of the child Jesus Christ, because of their mothers' adoration of the Madonnas. Napoleon's mother, a woman even more remarkable than her son, while carrying him accompanied her husband on a military campaign. The mother of the two Wesleys was a particularly devout woman, who showed in herself and transmitted to her children the quiet beauty of her life.

Thus, not only is the child's physical character strengthened by the proper exercise of the mother's during pregnancy, but its mental character is also affected by any mental quality which she exercises during this period.

In the same way that she can strengthen her own lungs by proper treatment, and by the same treatment transmit to her unborn child *even stronger lungs than her own*, so can she cultivate any particular quality or virtue of character and transmit it, *in an increased degree*, to her child. In this way, a woman with a bad temper or a reckless disposition can, by continual striving to overcome it and by some success in doing so, be fairly certain that her child will be born with a better temper or a better balanced mind than would have been possible if she had not so striven.

It is sometimes exceedingly difficult to account for the reason why a child possesses certain qualities of mind or body. There may have been no particular effort or inclination on the part of the mother to account for it. No vice may appear in the parents, and yet a streak of it, derived from some degenerate ancestor, may run through the child's life, tainting and perhaps ruining it. The sins or the misfortunes of the parents may not be visited on the children until the third or fourth generation, and not even then.<sup>1</sup> Frequently a child may revert several

<sup>1</sup> See also Ezek. xviii. from verse 14.



generations, and reproduce points in those ancestors of too remote a date to verify.

It is quite possible for the child to be uninjured in mind or body even after the mother has had a severe shock or blow. And that it will be marked in any way through her failure to obtain any special article of food for which she feels a strong desire is extremely improbable. This desire or longing, the bad effects of which are believed in by some people, but *disbelieved by a much greater number*, is seldom likely to trouble a well-controlled woman. She would accept the inevitable with the best grace possible, and fill her mind with other thoughts. Anything unpleasant should naturally be avoided as much as possible, since it is foolish to run unnecessary risks ; but if by chance such a thing should be accidentally met with or unavoidable, the woman must simply refuse to let herself be disturbed by it, and must dismiss it from her mind. The chances are strongly in favour of her child being unaffected by it, especially during the middle and latter months, but by treating it in a serenely indifferent and self-controlled manner she is still further strengthening those chances.

She must always, from the very beginning of pregnancy, endeavour to look at beautiful pictures and statuary—even one will suffice, if she can place it before her eyes and stamp it upon her imagination. She should, if she can make the opportunity, listen to fine music, read noble



books—read slowly at least one, and try to inwardly digest it ; for reading is only of the highest use in proportion as it induces thinking. Friends or acquaintances of hers who gossip uncharitably, or who are gloomy or petty or untactful, should be avoided when possible. She should keep steadfastly before her the particular qualities of mind and body which she wishes a child of hers to possess ; and, as far as in her lies, she must endeavour therefore to develop in herself these splendid qualities. “ Beauty of person, strength of mind, sweetness of disposition, and holy aspiration may be assured to posterity by parents wise and loving enough to fulfil the laws which lead to the desired results.”<sup>1</sup>

If she desires an affectionate child, unselfish and devoted in its love for her, her own love for it must spring up and grow through all the months of pregnancy. Nothing can prevent it from coming into the world with an inborn tendency to be like those beings who are responsible for its existence. Happy the parents whose children never regret their inheritance !

After pregnancy has once begun the husband's direct influence on the child has ceased. However, his indirect and no whit less responsible influence is there, ever present, during all the months of pregnancy. His wife's health and happiness, and his child's too, are helped or hindered by his behaviour. The great im-

<sup>1</sup> Dr. Dio Lewis.

portance of a child's surroundings, of its bringing-up, can never be lost sight of, yet the fact of the general tendencies of each life being inherited is one which admits of no doubt. "When each comes forth from his mother's womb, the gate of gifts closes behind him." After that everything that he possesses must be purchased, must be gradually acquired. Even gifts themselves require proper treatment before they can be developed into valuable and responsible possessions.

It should be remembered—and every girl who has reached womanhood should know—that although what a mother makes herself do or like during the months when her baby is coming is indeed vastly important to that baby, it is what she herself is gradually becoming during the years which precede these months—her character, her habits of life generally—that is of first importance. It is her habitual states of mind which have most influence on her child. Much can be done in nine months, but so much more in the years that precede them.

Illustrating heredity, and speaking of the doubt held by some people concerning the Divine origin of the mind, Henry Drummond, in his "Ascent of Man," says: "Let the mother look at her child and answer. 'It is the very breath of God,' she says; 'this Child-Life is Divine.' And she is right. But let her look again. That forehead, whose is it? It is hers. And the frown

‘ Emerson.

which darkened it just now? It is hers also. And that which caused the frown to darken ; that something or nothing behind the forehead, that flash of pride or scorn or hate? Alas ! it is her very own. And as the years roll on, and the budding life unfolds, there is scarcely a mood or gesture or emotion that she does not know is borrowed. But whence in turn did she receive them? From an earlier mother. And she? From a still earlier mother."

"How shall a man escape from his ancestors, or draw off from his veins the black drop which he drew from his father's or his mother's life? It often appears in a family, as if all the qualities of the progenitors were potted in several jars—some ruling quality in each son or daughter of the house—and sometimes the unmixed temperament, the rank, unmitigated elixir, the family vice, is drawn off in a separate individual, and the others are proportionately relieved. We sometimes see a change of expression in our companion, and say, his father, or his mother, comes to the windows of his eyes, and sometimes a remote relative. In different hours a man represents each of several of his ancestors, as if there were seven or eight of us rolled up in each man's skin—seven or eight ancestors at least—and they constitute the variety of notes for that new piece of music which his life is. At the corners of the street you read the possibility of each passenger, in the facial angle,

in the complexion, in the depth of his eyes. His parentage determines it. Men are what their mothers made them. You may as well ask a loom which weaves huckaback why it does not make cashmere as expect poetry from this engineer, or a chemical discovery from that jobber." <sup>1</sup>

"Heredity governs all the phenomena of degeneracy with the same results and the same energy as it controls moral and physical resemblance in the offspring. The individual who comes into the world is not an isolated being separated from his kindred. He is one link in a long chain which is unrolled by time, and of which the first links are lost in the past. He is bound to those who follow him and to the atavic influences which he possesses ; and he transmits them to his descendants. If he comes from a race well endowed and well formed, he possesses the characters of organisation which his ancestors have given him. He is ready for the combat of life. But inversely, if he springs from a stock which is already marked with an hereditary blemish, and in which the development of the nervous system is incomplete, he comes into existence with a badly balanced organisation ; and his natural defects, existing as germs, and in a measure latent, are ready to be developed when some accidental cause arises to start them into activity." <sup>2</sup>

<sup>1</sup> Emerson.

<sup>2</sup> Luys.

## CHAPTER XIII

### PREPARATION FOR THE BABY

“A toil that gains with what it yields,  
And scatters to its own increase,  
And hears, while sowing outward fields,  
The harvest song of inward peace.”

—WHITTIER.

“Look inwards, for you have a lasting fountain of happiness at home that will always bubble up if you will but dig for it.”—MARCUS AURELIUS.

THE extent and the quality of the baby's wardrobe depend chiefly on the wishes and the means of the mother. Some purchase outright a complete layette, or buy parts of it, borrow or beg others, and make the rest. Others prefer to make entirely by hand every one of the little garments. The amount of preparation is usually greatest with the first baby.

That some pride should be taken and some assistance rendered by the expectant mother in the preparations for her baby, is only right and natural. Such a work of love serves also as a very useful occupation, employing the hands

in more or less mechanical labour, while the mind, at the same time, is stitching into the work many pleasant thoughts and noble aspirations for the future of the little one.

The two all-important points about the clothing are : that good material be used to make it of, and honest work be put into it. After this, the adornment or decoration of the clothes is a matter of taste and opportunity. Comfort, daintiness, and simplicity should be the three results achieved. Starched clothing, with its scratchy, hard frills or gatherings of lace or material, at the neck especially, and coarse irritating flannel or wool are abominably uncomfortable to the baby's very tender skin. There should be very little fulness and no tightness at the neck in any of the garments.

For the first three months, sometimes longer in winter, the usual long-clothes are worn, these happily being much shorter and less cumbersome than formerly. They usually consist of day-gowns, night-gowns, petticoats, back-flannels, woollen vests, flannel binders, woollen socks, and napkins. The out-of-door clothes will depend on the time of year. One long cloak may be included in the outfit, but it is not an absolute necessity. A big woollen shawl may answer the purpose equally well or even better, but it must not be used as an extinguisher of fresh air on the baby's face.

The day dresses should be simple, and unstarched in the bodice part. There is generally

at least one particularly dainty and beautifully-worked robe for high days and holidays—though the less of these latter a baby takes part in, the better for the baby. White petticoats, the same length as the day-gowns, are frequently used, but are not actually necessary. The back-flannels should be long enough to turn up and pin over the baby's feet. They are generally made with slight double thicknesses of flannel across the back and chest. The long skirt part should overlap thoroughly, being tied in this position by ribbon or tape. The chest pieces also overlap, the two ribbons passing round the back, under the arms, and tying in front. Either the usual little woollen vest with long sleeves, or the open vest, also with long sleeves, which slips on like a jacket—not over the head—and overlaps and ties, can be used. The last named is the better, at any rate during the first month or two, because it can be slipped on with less trouble; afterwards it can be sewn up if desired, a ribbon run round the neck, and so transformed into a regular vest.

A very important article in the outfit is the flannel binder. Many an illness it has prevented by keeping warm those vital parts of a baby which can be so easily and so seriously chilled. It should consist merely of a strip of soft new flannel, washed through once, and unhemmed; broad enough when wound smoothly round the baby to extend from an inch below the armpits to the hips. From four to six inches



is usually sufficient in breadth; if made too broad, narrow strips can easily be torn off. It should be long enough at first to go twice round the baby. The exact way of sewing it *up* the back will be explained later. Three of these are necessary, and more can be torn off the original piece of flannel as they are wanted.

Woollen socks and shoes are now sometimes dispensed with, but if it be found that the baby's feet are cold—as they are very likely to be—it is much wiser to see that they are always worn. They are specially needed after the baby has been short-coated, and when it misses the warmth of the long back-flannel. Two pairs at least should be provided.

For the napkins, the most satisfactory material is fairly thick Turkish towelling or some sanitary woollen material. Ten or twelve yards should be bought, at least eighteen inches wide, and cut up into squares, the two raw sides of each square being turned down once, and sewn thus with the blanket stitch. A thick hem is always very uncomfortable and so should be avoided. Each yard will make two square pieces, and so the amount already mentioned as sufficient will cut up into twenty or twenty-four squares. This number, which is none too many, will not need such frequent washing as a smaller quantity, and so will wear better. A few small, soft squares of old, clean cotton are sometimes prepared for use next to the body, inside the proper napkin, during the first two or three days after

birth, as the discharges are at first liable to stain any material they come into contact with. Each of these little old squares can be burnt as soon as it is used.

Needless to say, everything, whether new or otherwise, should be properly washed before being used, so as to make it wholesome and soft, and to take away any uncomfortable stiffness or "dressing." A light, open-work veil of silk or wool is sometimes worn out of doors, especially in winter, for the first few weeks. This may be included in the list, and also a couple of head flannels or else little woollen shawls, and perhaps a woolly jacket or two.

A cot or cradle must be provided, preferably raised off the floor to the same height as the mother's bed. The rocking or swinging cots are now condemned, the motion from side to side being said to be bad for the brain. If possible the cot should have a spring mattress, on which should rest an ordinary hair mattress. And again on this for the first few months, while the baby's bones are soft and its skin extremely sensitive, should there be a small feather bed, or in place of it, a full-sized soft feather pillow, with the feathers slightly massed at one end to act as a tiny pillow. Afterwards this feather bed can be removed, and the baby will soon grow accustomed to sleeping on the ordinary mattress with a small soft pillow. Two strips of mackintosh should be used alternately next to the bed to protect it ; over one of these strips

will come the under-blanket on which the baby is to lie. The coverings of wool or blanket will of course depend on the weather, and to a certain extent on the baby as well, since some are feebler and of poorer circulation than others.

A hot-water bottle, *kept hot*, and wrapped round so that it shall not come into direct contact with any part of the baby, and placed at the side of the cot, is necessary, as the little one has not sufficient warmth of its own. Sometimes it is necessary to use two hot-water bottles to sustain sufficient warmth. Heavy clothes must be entirely forbidden. Light, warm woollen coverings allow a freer circulation of air, and do not weigh down on the baby's body. At least two or three little blankets, sheets, and pillow-cases, as well as two tiny pillows, should be included in the outfit. The cot itself must be made as cosy and soft as possible, because much of the baby's time will be spent in it. A basket also is usually provided, in which can be arranged all the baby's paraphernalia. It can be fitted up as daintily and in the same style as the cot. In this basket, ready for immediate use, must be the first set of little clothes, a needle and thread, strong safety-pins, a little cotton-wool, some aseptic—or else plain white absorbent—gauze, some stout, light-coloured thread, a soft shawl or flannel wrap in which to put the baby at first, some carbolised vaseline, a pair of scissors, a piece of pure delicate soap, and a box containing a powder-puff and some

dusting powder. Fuller's earth, or two parts of powdered starch to one part of boracic powder, or one of the thoroughly reliable makes of baby-powder, may be used. A small ball-enema, holding one ounce, is a very useful addition.

For the mother's own use must be provided a clean, full flannel apron or petticoat—two large bath-towels will answer the same purpose—fresh antiseptic towels or absorbent pads, a stout binder or two, some equally stout safety-pins, a bottle of castor-oil, a piece or sheet of mackintosh, and, if possible, a small sheet or two of antiseptic wool. A douche-can, preferably of glass, with a vaginal as well as an enema nozzle, a rubber hot-water bottle, a disinfectant of some kind, a bed-slipper, a bed-bath as well if it can be obtained, and several clean, well-aired sheets should be at hand. It is also useful to have in readiness a little bottle of glycerine and borax, with which to paint the nipples after each time that the baby has been fed, and after bathing. This cures soreness and prevents it developing into genuine pain, as it so easily can. Everything, including the baby's basket, ought to be kept covered over, so that no dust can settle on it.

The birth-room should be light, quiet, and airy, with a fireplace in it. It is best to remove all useless curtain-hangings and other dust-collecting encumbrances, as well as any valances on the bed, and everything of any description

underneath it. The bed-coverings must be spotlessly clean, blankets, sheets, pillows, and all, and the room itself should be thoroughly turned out a day or two before the confinement is expected.

An important point to remember at any time, but especially in preparation for a confinement, is that the drainage of the house must be above suspicion. If there are any doubts as to its sanitary condition, if the inmates have suffered from sore throats or any other suspicious symptom, it is merely courting disaster not to have it properly tested.

## CHAPTER XIV

### SUMMARY OF ADVICE ON PREGNANCY

"If you ask me which is the real hereditary sin of human nature, do you imagine I shall answer—pride, or luxury, or ambition, or egotism? No ; I shall say—*indolence*. He who conquers *indolence* will conquer almost anything,"—LAVATER.

1. CULTIVATE a calm, cheerful disposition. You can do this if you will, however bad-tempered, irritable, or morose you may be in the beginning. Drive away worry by keeping the mind full of strong, pleasant thoughts. Avoid all excitement, keeping yourself well in hand, even on exciting occasions. Do nothing, *and allow no one else to do anything* which you are convinced is injurious to your baby or yourself. Look at and meditate on beautiful things, and shut your eyes to all that is unsightly.

2. Eat moderately and at regular hours, adopting a simple diet. Take your last meal two or three hours before going to bed. Avoid alcoholic or narcotic drinks as much as possible.

3. Exercise in the open air every day. If exercising indoors as well, see that the windows

are wide open, and that your clothes are loose. Be very careful not to strain or over-exert yourself, and avoid jerky, sudden movements. Keep early hours. Rest sufficiently every day, but avoid laziness.

4. Cleanse the body thoroughly every day. Use the sitz-bath regularly every evening, especially during the latter months. See that the body is cleansed internally by regular actions of the bowels and bladder.

5. Dress as common sense and good taste bid you, avoiding all tight and heavy clothing. Suit your garments to yourself, not yourself to your garments. Keep sufficiently warm, but not overheated.

6. If any slight ailments appear, treat them sensibly at once; if serious, or if you are unable to relieve or check or cure the simple ones, consult your doctor. Unless professionally ordered, take as little medicine as possible, and especially avoid strong purgatives.

7. You or your husband should arrange beforehand with the doctor that he shall give you chloroform at the confinement should it be necessary. If the doctor be a good obstetrician—*and this is a very important point to bear in mind in selecting one in the first place*—the question of the time and necessity of administering chloroform can be left in his or her hands. When properly given it can have no bad effect on mother or child; in fact, it is undoubtedly beneficial in the exceeding relief



it affords, in the wear and tear of nerve which it saves. Many well-known doctors who have used it now in thousands of cases of childbirth state that they have done so with the happiest results, and without the occurrence of a single fatal case arising from its use.

8. Have everything ready as nearly as possible by the seventh month. The nurse should be engaged much earlier than this, if you wish to make certain of securing her services. She should be near at hand, or within the house, a week or at least a few days before the baby is expected, especially in the case of a first confinement. Choose, if possible, a cheerful, healthy, well-trained nurse, one who is known to be kind and level-headed, and one who is a lover of babies.



PART IV

THE WOMAN AS MOTHER



## CHAPTER XV

### THE BIRTH DAY

“Revealing by felicity,  
Foretelling by simplicity,  
And preaching by its sudden cries,  
Alone with God the baby lies.”

—H. COLERIDGE.

IN some cases the approach of this important event is heralded by certain symptoms, while in others there may be no noticeable warning of any kind. The confinement may practically have begun and yet be unsuspected. Thus it is necessary to have everything in readiness for some time beforehand, instead of waiting till the last moment for symptoms which may or may not be observed.

These symptoms, any or all of which may be noticeable, are :

1. The sinking of the uterus to a slightly lower position in the abdomen, which results in the breathing of the patient becoming easier, while her walking movements may become more difficult.

2. An increase in the secretions from the

vagina, popularly known as the "show." This is the coming away of a little mucous membrane which has served as a small plug, sealing the mouth of the uterus.

3. Diarrhœa, and a frequent desire to relieve the bladder, owing partly to the increased pressure on the bladder and bowels caused by the sinking of the uterus.

4. A sense of weight and pressure on the lower part of the bowels.

5. An increased swelling in the external genital parts.

Sometimes there may be false pains, but these can hardly be called a symptom, since they may be caused by some irregularity of living, such as constipation, indigestion, colic, or exhaustion. They may be distinguished by their irregularity and by the absence of contractions of the uterus from the true pains.

What exactly determines the period of pregnancy, why labour should take place at a variable and indefinite day, nine months after conception has occurred, is a riddle still unsolved. There is, however, no doubt that the chief factor in the expulsion of the child is the uterus itself, whose actions are possibly determined by the stage of development of the child. These muscular uterine fibres contract, assisted by some of the abdominal muscles, and by these contractions and the corresponding relaxations the child is gradually sent out.

Although the mother has the power of increas-

ing the action of the abdominal muscles—except perhaps towards the close of labour, when through reflex action they act to a certain extent involuntarily—she has no power over the muscles of the uterus. Their contractions are involuntary; she cannot lessen or increase them. Probably they also occur irregularly and usually painlessly during pregnancy. It is towards the close of this period that they are accompanied by pain. Occasionally, for days or even weeks before confinement, pain may be felt at irregular intervals. Although there may be other causes, it is doubtless frequently the result of uterine contractions. The effect of these contractions, however, is slight; they do not assist in widening the mouth of the uterus, as the labour contractions do. These irregular or false pains may pass away again for days, although sometimes they continue, growing gradually more regular, and so developing into the true pains which mark the onset of labour.

When the regular pains begin, the doctor should be at once communicated with. There may be no need of his attendance for some time, but that is a matter best left to his judgment. Also, by giving him due warning, he can arrange to be within call. The nurse, if not already in the house, should be fetched immediately. If she is a good one, there is much she can do in helping the patient, and in seeing that everything in and out of the birth-room is properly prepared. If the weather is cold or



damp, a fire should be lighted in this room and a final airing given to the baby's and the mother's clean garments and sheets. A small clothes-horse is much better than the floor or the fender for this purpose. A kettle of fresh water should be at hand.

The nurse will arrange the patient's bed satisfactorily, and a small one must be put up for her own use in the same room or an adjoining one.

The patient should avoid all temptation to anxiety or flurry, and keep cheerfully calm. What has to be has to be, and should be met with the best grace possible. When health has been studied—and in some cases, remarkable though it may be, even when it has not—and when chloroform or other anæsthetic is to be given if necessary, there will be no cause for alarm in the majority of cases. Even if there did happen to be such cause, worrying over it would be of no use, besides being unpleasant and perhaps even productive of harm. Pain in some degree she must expect, but the extent of it depends largely on her own attention to health during her previous life in general and during her pregnancy in particular, and on the amount of anæsthetic administered by the doctor.

The presence of the husband in the room is a matter of opinion, and best left to the wife's decision. There is, at any rate, no reason why he should not be there, to help and to cheer her until the end of the first stage of labour. In

the majority of cases, it is well that he should be able to form some idea of what child-bearing means to his wife. If he desire to be in the room all the time, no one except his wife can say him nay. Besides himself, the nurse, the doctor—who will probably come to the room now and then, but will not stay in it until the end of the first stage—and perhaps *one* female relative or friend, no other person should be in the room. A larger number is neither necessary nor desirable.

The confinement, or act of parturition, is usually divided into three stages ; the first, from the beginning of the pains until the complete dilatation or wide-opening of the cervix—or mouth of the uterus—has taken place ; the second, from this dilatation to the birth of the child ; and the third, from the birth of the child to the coming away of the “after-birth.”

The first stage is usually much the longest. The average duration of labour is said to be from eight to ten hours, but many cases, even with first babies, terminate much quicker than this, while many others may extend to twenty-four hours or longer. There are always so many causes for uncertainty concerning the actual length of labour, that it is impossible for even the doctor to give a positive opinion about it.

When the pains really begin it is best to take a full enema, so that there shall be no unnecessary obstruction internally to the operation of labour. If the nurse, on her arrival,

finds that this has not been done, she usually sees to it at once, for, apart from other reasons, an unrelieved condition of the bowels at this time naturally increases the pains. It is strongly advisable for the patient to take a warm bath a few hours before the confinement, using freely a good antiseptic soap, and cleansing herself as thoroughly as she possibly can. Besides this, the nurse should prepare the external genital organs by thoroughly and antiseptically washing them. A light and nourishing meal may be taken early in the first stage if wanted. After the middle of this stage, however, many doctors prefer that nothing should be taken.

When the doctor first arrives he will probably make an abdominal examination. One or two vaginal examinations also are usual. This is necessary not only for the sake of the patient, who will usually be anxious to find out if she is making good progress, but also that he may discover how soon his services are likely to be required. For by this examination he is enabled to note the stage of labour and to determine the presenting part of the child—that is, the part that will be born first. A doctor can easily tell the difference between false and true pains, for in the former case, besides noticing that the uterus does not contract with each pain and then relax, he will observe that the cervix is not dilating and does not alter in consistency before or during a pain.

During the first stage it is best to undress,

putting on a flannel apron or towel, then a perfectly clean nightdress, and a loose gown over that. The hair should be plaited comfortably, all hairpins being removed. Chloroform is not usually administered until the end of the first stage. Given too soon, it is apt to hinder progress, and given in too large a quantity it is said to increase the possibility of hæmorrhage. The pains are in this first stage described as grinding, and it is best for the patient—unless otherwise advised by her doctor—to move about the room gently, and to refrain at present from bearing down or trying to assist herself by any kind of straining. Lying down on the bed at this stage generally retards rather than quickens labour, while bearing down is tiring and not yet of any use. A pain may be best borne by bending over the back of a chair or something similar. Slight sickness or shivering is sometimes felt, but this should not worry the patient at all, as it merely shows that progress is being made. The pains gradually become stronger and return at shorter intervals, until finally the mouth of the uterus is sufficiently dilated to admit of the passage of the child.

Then the second stage is entered upon, and during it the patient lies down on the bed. In the British Isles the usual position is to lie somewhat across the bed on the left side. Sometimes a roller-towel, or something similar, is tied to the bottom of the bed for the patient to hold. The act of pulling against it affords

relief and assists in bearing down when necessary. If a little sleep can be obtained between the pains, as is often possible, all the better ; such little rests as these renew the strength.

A very usual way of giving chloroform in confinements, where the object is not so much to render the patient unconscious as it is to blunt the pains, is to place a little cotton-wool in a tumbler and pour some drops of chloroform on to it. The tumbler is then given to the patient to hold. As she breathes in the chloroform the relief is immense ; it must be personally experienced to be properly appreciated. As she gradually comes under the influence of the anæsthetic her hand holding the tumbler becomes limp, and loosens its hold ; then she suddenly discovers that she can again feel the pains, and eagerly rouses herself to find the glass. From time to time, as the chloroform evaporates, it is necessary to pour more of it on the cotton-wool. By this time the sac of liquid, or "bag of waters," which has protected the child during pregnancy, and which has been assisting labour by acting as a wedge in widening the cervix, has burst through the vagina. Some time after this the child is born, usually head first.

By now the patient may be more or less completely under chloroform, so that the last intense pains are unconsciously borne. Directly the baby's head is born, the doctor takes care that the navel-cord is not around its neck, and wipes

each eye with a separate piece of aseptic gauze or wool. Then he is ready to receive the baby. After the cord has quite finished pulsating, he ties it round tightly with some strong plaited thread, about a couple of inches from the baby's navel ; also he generally ties it again in another place, two inches farther away from the baby than the first tie. Then the cord is cut between these two threads, and the baby is handed over to the nurse. The rest of the cord is never pulled away from the mother, but comes away attached to the "after-birth."

The nurse receives the baby in a warm flannel, and, if it has not already cried, gives it a little pat or two, which generally has the desired effect. By its first cries it fills its little lungs with air, and thus involuntary breathing is started. (When it does not cry or breathe, artificial respiration is at once tried.) Then she wipes its eyes very gently and thoroughly with a separate piece of wool or gauze dipped in pure water or boracic lotion, and she takes care that no strong light falls on them. If the eyes are neglected and anything of an injurious nature enters them, serious trouble may result. In cases in which the doctor fears vaginal infection he or she usually drops a weak solution of silver nitrate into each eye. The mouth and nose also are well cleansed. Then, if the doctor so wishes, she rubs over the little body—only a small part of it being exposed at once—with sweet oil or lard, to assist in



removing some of the sticky substance with which it is covered. Sometimes the doctor may prefer that, after wiping its face, she merely wraps it up in cotton-wool, or something else equally warm, for the time being. In any case, the baby's first toilet should be as brief as it is gentle. Then, when covered up warmly—not dressed—and with sufficient breathing-space allowed, it is laid on one side.

When the "after-birth" has appeared the doctor examines it to see that it is complete, that no part of it has been left behind in the uterus to cause mischief, and gives it to the nurse to burn as soon as possible. After this, in cases where operative or instrumental interference has been necessary, an aseptic or normal saline douchè is usually given to the patient in order to thoroughly wash out and cleanse all the internal parts. If there is any hæmorrhage present, a hot douche (about 112° F.) is sometimes given as a means of checking it. Sometimes when the parts are a little torn it is necessary to put a stitch in. If done at the time, this saves much future trouble. It is not always painful, but even if it is it is well worth bearing.

Immediately the baby is born the muscular tissues of the uterus contract, and cause the uterus to feel externally like a small, hard ball, behind the after-birth, and very low in the pelvis. These necessary contractions are very useful in checking any tendency to hæmorrhage. They



are the cause of the "after-pains." After a first pregnancy these after-pains are very mild, or even absent altogether ; but with succeeding pregnancies they become more marked, just as the pains before birth may become less severe. The mouth of the vagina and the surrounding parts are now bathed, everything soiled removed, and clean, fresh clothing put in its place. A little drink of hot tea made with milk instead of water, or of beef-tea, may be given to the mother, and the binder is put round her.

Sometimes the binder is objected to for various reasons, but there can be no harm in it if properly put on, and in very many cases it gives decided comfort and support. In a perfect condition of health its use would naturally be superfluous, but it is necessary to take into consideration the rarity of such health through the force of heredity and the present manner of living before condemning it wholesale as a futile attempt at bolstering up nature. Fastened, in the first place, sufficiently low down to take in the hips firmly, the binder should grow gradually looser as it is fastened upwards, so that there is no pressure round the chest.

After these little operations the mother is made quite comfortable, and is generally allowed a peep at her baby and a word with her husband. Then she settles down to a well-deserved and highly appreciated rest. After waiting a little to see that all is going on well, the doctor takes his departure. The nurse, having made the

baby comfortable, and keeping it very warm, because it has so far lived in a temperature of nearly a hundred degrees and could therefore be so easily and fatally chilled, lies down and takes a short and also well-deserved rest. Peace reigns supreme, and the mother no longer thinks of her pain, "for joy that a child is born into the world." Afterwards she feels that the reward is worth, many times over, the pain and the thoughtful care she has spent on the winning of it—that her striving has indeed reaped "strife's success."

## CHAPTER XVI

### CARE OF THE MOTHER

"Something thou hast to bear through womanhood—

\* \* \* \*

Some pang paid down for each new human life ;  
Some weariness in guarding such a life—  
Some coldness from the guarded ; some mistrust  
From those thou hast too well served ;

. . . Thy love

Shall chant itself its own beatitudes,  
After its own life-working. A child's kiss,  
Set on thy sighing lips, shall make thee glad :  
A poor man, served by thee, shall make thee rich ;  
A sick man, helped by thee, shall make thee strong ;  
Thou shalt be served thyself by every sense  
Of service which thou renderest."—E. B. BROWNING.

AFTER the baby is born and the mother made comfortable, the one thing necessary for both is rest—rest of mind and body. It is sheer unkindness to admit visitors during the first few days ; the mother has absolute need of a short breathing space, during which she may devote all her energy to the recovering of her strength. However well she may feel, she is all the better if kept perfectly quiet. If her supposed feelings

of strength are presumed on, their real weakness will be only too apparent in most cases, and the effort may lead to more serious mischief than is generally believed. All that is required of her is to rest, to sleep when possible, and to eat sensibly and cheerfully. For the first three or four days while the flow of milk is establishing itself, it is especially desirable that she should not exert herself. The knees should be kept together, particularly if there has been any slight laceration. Even the arms should be allowed but little movement, all attempts at hair-dressing, or at anything else which might stretch or strain them, being avoided.

Immediately after the confinement a hot or warm antiseptic douche is sometimes given. Some doctors dispense with this entirely, others content themselves with the one douche, while many insist on one or two a day being given for the first week or two. It is highly important that everything coming in contact with the patient should be scrupulously clean—sterilised if necessary, for, as every nurse worthy of the name knows, it is appalling how slight a thing can cause septic poisoning.

The discharge or "lochia" from the vagina after confinement has at first more or less blood with it, but it soon becomes pale and gradually slighter in quantity. The use of an aseptic douche is sometimes of service in washing this away and in purifying the vagina, although nowadays it is recognised that, unless given with

every possible precaution—and this cannot always be guaranteed—douching may cause more harm than good by causing unnecessary danger of infection. The external parts should be bathed twice a day during the continuance of this lochial discharge. When the mother has had a rest after the confinement, the baby is usually placed at the breast, as suction helps the uterus to contract. Although the flow of milk may not be established before the third day, a little fluid is usually available shortly before this. This first little meal of the baby has a beneficially aperient effect on it, relieving and cleansing its intestines from any secretions which may have accumulated. These first motions are dark in colour.

By the third day, if the mother has had no natural relief of the bowels, an enema of warm or hot water, with a little pure soap dissolved in it or glycerine, or a dose of castor-oil, will be necessary. While she is lying in bed it is not unlikely that there may be need of some such assistance frequently to induce the daily action on which health depends so much. If she is fortunate enough to be able to feed the baby, any medicine she takes may affect it through the milk, so that unless the baby too is in need of an aperient it is better—for this reason as well as for others—to take an enema.

The bladder should be relieved frequently after the confinement. If for any cause this cannot be done naturally, a hot cloth over the

bladder may be of assistance. Should this prove unsuccessful, the urine must be drawn off by means of a catheter.

*Nursing-mother's Diet.*—The diet should consist chiefly of milk food varied with beef-tea during the first few days. Then very gradually the mother may return to her ordinary diet, omitting highly seasoned or spiced dishes, pickles, and too much fruit if it has too aperient an action on the baby. It is impossible to know exactly what will suit or disagree with the baby, since all are not alike; but if advice and common sense fail, experience will soon teach the mother what to avoid. Shell-fish, rich pastry, pork, or anything else indigestible—even certain kinds of vegetables—may prove poisonous to the child through its mother's milk. Milk puddings, some well-known food made with milk, and milk itself with a little water added to it to help in its digestion, will assist in keeping up the flow of milk. The baby should be fed at each breast alternately, and if there is any inclination to tenderness of the nipple it should be painted after each meal, and after bathing, with glycerine and borax. Some babies suck very vigorously, sometimes because they are hungry and cannot obtain enough to satisfy them, and this is apt to cause discomfort to the mother. To obviate it a breast-shield may be of much use.

*Influence of Nursing-mother's Mind.*—Not only the diet of the mother, but her state of mind as well, influences the milk and conse-

quently the baby to a great degree. As mentioned before, it is possible for a woman who indulges in a violent fit of anger shortly before or during the time that she is nursing her baby to cause such alteration in her milk that it can actually poison the child, causing convulsions and even more disastrous consequences. Anxious, worrying thoughts—any stressful feeling, in fact—on the part of the mother can seriously affect the child through the milk. An over-heated or over-fatigued mother cannot help injuriously affecting her baby's peace of mind and body. During the months of nursing a mother should therefore lead as quiet and regular an existence as possible ; she should more or less vegetate. If she still preserves her own health, and if she is giving her baby its wholesome natural food, she is also giving it the surest help possible in the building-up of a healthy life.

*Reasons for Weaning.*—While the mother lies in bed, while her diet and herself generally are in the care of her nurse, the milk will probably be plentiful. Certainly this is its best chance of being so. But when she is up again, when her energy is being expended in countless directions, it may happen that there is less milk, or that it deteriorates in quality. Sometimes the milk flow is satisfactory as far as the baby is concerned, but is too much of a drain on the mother, whose health consequently suffers. Intense headache, dizziness, continued menstua-



tion, or severe leucorrhœa—which is liable to give the baby green motions or else diarrhœa—and any other signs of weakness point a danger signal. The mother must take notice of this and act accordingly, first of all by paying strict attention to her diet and to sufficient rest of her mind and body. By “feeding up” the mother, by improving her health in every possible way, the quality of the milk is improved. Natural feeding does for the baby what no other food can do, and therefore it should not be given up without very good reason. But if with every care the mother finds it impossible to continue entire feeding, half a loaf is better than no bread ; that is to say, provided it agrees with the baby, half its quantity of natural food and the other half of artificial food is better than none of the former and all of the latter. Supposing the mother’s milk to entirely disagree with the baby, as it is not unlikely to do if her own health is suffering, nursing must be given up entirely. When the baby does not increase properly in weight (half a pound per week is a good average during the first month), or when it is extremely restless or unhappy in spite of the quantity of milk supplied being amply sufficient, the quality of the milk is probably to blame. When natural feeding is good for the baby, it is, as the old rhyme has it, “very, very good”—*nothing else in the whole wide world is quite so good*—but when the results of it are really unsatisfactory it must be given

up. Also, after the baby is from nine months to a year old it should in any case be weaned.

*Weaning.*—Whether the baby is weaned early or late, this process is best done gradually. If less and less milk is taken from the breasts at each meal, there is always less and less in them ; Nature takes the hint. On the other hand, when they are emptied completely each time, Nature strives to keep up with the demand by secreting in the milk-ducts as much milk as is called for.

To assist in driving away the milk the amount of milk, and of liquid food generally, taken by the mother must be restricted, so that the supply to the breasts is checked. Equal parts of glycerine and camphor may be applied to the breasts several times a day to aid in checking the milk, or belladonna can be used in the form of extract, liniment, or plaister. If plaister, a small hole is made in the centre of each so that the nipple shall not be enclosed. Sore nipples sometimes necessitate weaning in order to avoid a gathering or abscess. When it is possible to avoid it, weaning should not be begun in hot weather.

Every woman worthy of the name knows that a child should always be nursed when possible during its first nine months, but to continue such nursing until it is nearly or quite two years old is said to be harmful both to the child and to the mother. Many women continue nursing long after the proper period, believing

that while doing so they are unlikely to become pregnant again. But there is no certainty about this, and the chances in favour of it are often outweighed by the disadvantages resulting from prolonged nursing. During the period of nursing, if menstruation occurs and if the mother's health is injuriously affected, it is best to give up nursing. If pregnancy should occur it is imperative that nursing should be given up at once. Sexual intercourse during nursing is unnatural, and harmful to the baby as well as to the mother.

*Period Necessary for the Mother to Remain in Bed.*—A mother should never be allowed to leave her bed before the ninth or tenth day at the earliest. In fact, if she have opportunity and sufficient sense, she will put it off until later than this. It is not that she is ill, but that she is in a weakened, exhausted condition, and so more particularly liable to contract disease than when she is in her normal state of health. Her powers of resistance have been lowered, her energy expended on a stupendous work, and it is only right and proper, *taking into consideration the fact that she is not a healthy savage*, that she should require rest while a regathering of strength and energy takes place. An extra week of rest now may save her from years of bad health, for the practice of getting up too soon is responsible for much serious displacement and enlargement of the uterus. The uterus has been subjected to enormous expan-

sion, and it takes six or eight weeks after a confinement before it returns to its natural size. Therefore, during this period it is necessary to assist it by avoiding any risk of over-exertion or exposure. If the strength is not used up in other directions, if the mother rests as much as possible—rests entirely while the lochial discharge from the uterus continues—her energy can thus be concentrated on assisting the uterus, and on providing good milk for her baby if she be fortunate enough to be able to feed it—fortunate enough because this nursing assists the uterus in regaining its normal size, besides being otherwise good for her, and because it is the baby's natural food, and therefore that, provided it be wholesome food, on which it can best thrive.

## CHAPTER XVII

### CARE OF THE BABY

“So thou, sweet Rose-bud, young and gay,  
Shall beauteous blaze upon the day,  
And bless the parent's evening ray  
That watched thy early morning.”  
—BURNS.

*Baby's First Meals.*—Until the milk-flow is established on the third day a baby requires no food beyond perhaps a little sweetened water with a very small proportion of milk in it. Although every two hours is the period at which it is fed during the first month, its first meals must generally be much more frequent than this, especially if it be a weak or a prematurely born baby. The time of the meal varies according to the baby. Some take long to obtain sufficient nourishment; others take vigorously all that they require in ten minutes. A baby should never be hurried. The mother should lie down at first to give the meal to the baby, and should hold its spine along her arm as much as possible. If the milk will not flow

properly, the breasts should be gently rubbed with oil towards the nipple, with the palm of the hand. Sufficient room must be given to the baby to breathe, especially if the mother is likely to go to sleep while feeding it—a most unwise proceeding, for a baby's lungs are so tiny that they can hold but little air, and so it is very easily suffocated. When it becomes sleepy while feeding, an effort should be made to gently rouse and coax it to finish the meal ; otherwise it is impossible to observe any regularity over the meals. Also, the baby might be famished if made to wait the full time after taking only one-quarter or one-half of its meal. It is not usually necessary to awaken a healthy baby when its time comes for a meal ; Nature knows best what is required and should be left undisturbed. But with a delicate baby it is sometimes absolutely necessary that it should be roused for its meals, so that its strength may be kept up and that it may not continue in an unconscious condition through sheer weakness.

The amount of food obtainable by the baby is another point to be noticed, for sucking and even swallowing are not infallible signs that it is taking sufficient. A baby until a month old should take from one and a half to two and a half ounces at a meal, and after that the amount gradually increases to suit its growing needs. The meals should be at intervals of two hours during the day part of the first month, two and a half during the second and third

months, and three hours at the fourth. After the sixth month every three and a half hours is sufficient. The meals should be given with strict regularity. Night-feeding after the first three or four weeks should be avoided. A baby, after a good meal at ten o'clock at night and after being made comfortable and warm, should be gradually trained to require no further feeding until four or five o'clock in the morning. A little drink of slightly warmed water should be given to it if it wakes and cries, and it should be changed, its garments re-arranged, and its position altered to make it more comfortable. This good habit of avoiding night-feeding is well worth the cost of a little trouble at its instalment; it allows the mother several hours of necessary sleep, and it gives the baby's stomach a little beneficial rest.

*Importance of Proper Feeding.* — When a nursing mother does not pay proper attention to her own diet, it is inexcusable and dearly-paid-for neglect on her part, because the baby's temper and consequent easy management — to say nothing of its health—depends so largely upon this proper and natural feeding. In fact, it is not too much to say that *improper feeding is the greatest cause of infantile disease*. This point, therefore, should be clearly borne in mind—that, in normal cases, a properly fed and cared-for baby is a more or less happy one, while one that is cross, crying, and wakeful is more often than not like this through bad



health. It is not the baby who is to blame for its fretfulness, but the mother who neglects the proper feeding and care of it, or who possesses a bad temper of her own to the cure of which she has paid insufficient attention during her pregnancy. The mother reaps as she has sown. Babies in homes where their presence is loved, where pains are and have been taken to insure their well-being, grow healthy and happy, just as flowers grow well in the gardens of those who love and tend them.

*Water-Drinking.*—Concerning water-drinking, it is a well-known fact that babies can suffer severely from thirst through the ignorance of those in charge of them in not understanding this frequent want of theirs. Sometimes half a dozen different things are tried when a baby is crying or restless, while the simple remedy of giving it a little drink of slightly warmed water is neglected. A feverish baby, for instance, is nearly always thirsty, Nature showing by this thirst that water is necessary for the baby's condition. Pure water with the chill off cannot do harm ; indeed, it is of real use in relieving and cleansing the system.

*Comfort of the Baby.*—After the ingredients and quantity of a baby's meals have received due attention, their regularity comes next in importance. When a baby cries it by no means always implies that it is hungry, any more than does every tiny ailment from which it suffers

imply the advent of a new tooth. Thirst, and discomfort caused by tight-cutting bands round its waist or neck, too high a pillow, a chafed or sore skin, a napkin that requires changing, any garments that need re-arranging, an unfastened safety-pin, and insufficient warmth, are very common causes. Those garments of an infant which are tied at the waist by bands or sashes should be fastened in front, so that the hard knots shall not press uncomfortably into the back when lying down. It is better to put a baby down on its side than on its back, then if sickness occurs—as it so frequently does when a baby is disturbed directly after a meal or when it has taken too much—it is less likely to choke. After a meal it should be put down either in bed with its mother (the best position being on its side with its back to its mother and about one foot away), or in a cosy cot with a hot-water bottle. There is so little heat in its own body that it must have artificial heat of some sort; otherwise it becomes gradually weaker and may not live at all.

*A Wet-Nurse.*—For the young baby a wet-nurse or a bottle must be the substitute when its natural food, its mother's milk, is unavailable. The former is generally difficult to procure, and is frequently undesirable in many ways even when procurable. However, should the decision be in favour of a wet-nurse—and in the case of an exceedingly delicate baby such a course is sometimes the only successful one—it

is first of all necessary to find a healthy one. Her physical and moral habits of life must be noticed, and she should sleep in the house and be always under the eye of the mother. She should be allowed a generous, wholesome diet, but there is no reason whatever why she should have an unlimited supply of stout. On the contrary, there is more than one reason why she should have no alcohol whatever, unless it is professionally ordered. All the modern tendency is against it for nursing-mothers. Milk is the best drink for a nursing woman, and there are many foods made with it which prove of much benefit to her also. The wet-nurse through her milk will exercise a strong influence over the child. If she be unhealthy in body or corrupt in mind, the child may be gravely affected by her.

*The Right Bottle.*—If the baby is to have artificial food, and is too young to begin taking it out of a cup or spoon, a good hygienic feeding bottle must be procured. Those with long rubber tubes should be scrupulously avoided, and one of the boat-shaped varieties with the teat at one end and the stopper at the other selected. The long tubes can be positive death-traps, since the inside of them becomes infested with germs, the result of dirt which it is impossible to remove. With the boat-shaped bottle a stream of water can be run through it and the teat turned inside out and washed completely. If the child takes the food too quickly, a teat

with three leech-bite holes should be used, as this regulates the flow of food to the amount of sucking. Also, after every few swallows, it should be gently prevented from feeding for a second or two. All the time that it is feeding, the bottle should be tipped up, so that the teat is always full of food. Otherwise much air may be sucked in instead of the food, and wind given to the baby. After use, the bottle should be thoroughly scalded out and then placed, with the teat and stopper, in cold water to which has been added a pinch of carbonate of soda; in warm weather especially is the soda necessary to help in keeping it all sweet.

*Various Diets for Infants.*—There are several foods which can be given to a baby and very many others which cannot. No starchy foods such as potato, bread, or other farinaceous food should be given before the child is eight months old, because up to this age its saliva is unable to convert the starch into sugar, which process must be performed before the food can be digested. Pastry, meat, and all “grown-up” articles of diet must certainly be avoided for very much longer than eight months.

*Milk is the Natural Food of a Baby or of a Young Child.*—Instead of using any of the particular foods, some mothers prefer to give their babies cow's or goat's milk, and water. Why it is that the natural milk is taken undiluted, but that it is necessary to dilute cow's or goat's milk, can be explained thus: its mother's milk

is given to a baby undiluted because the small, crumb-like curds into which it forms in the child's stomach are so easy of digestion. Any other milk, however, produces such big, indigestible curds when taken by itself, that it is necessary to dilute it with water, barley-water, or lime-water, which assists in breaking up these curds. One-third of milk to two-thirds of water (barley-water is sometimes used instead of pure water), a lump of sugar or, better still, a pinch of milk-sugar, and a teaspoonful of cream makes an excellent bottle of food, on which many babies thrive well. The milk should be sterilised or scalded—that is, raised to a temperature of 160 degrees—and the water should be treated in the same way if there is any doubt about its purity. In districts where the water is very soft, it may be necessary to add a little lime-water to the food, to assist in the avoidance of rickets and to aid the teething. After the first three or four months, the proportion of two parts water to one part milk can be by degrees reversed. White curds appearing in the baby's motions show that the proportion of milk given is greater than can be digested. One very delicate baby of the writer's acquaintance was successfully reared on certain proportions of milk and whey when other foods had been tried without avail.

Humanised milk, sometimes taken by itself, sometimes with other foods, is another good preparation.

*Patent Foods.*—If a patent food is to be used with the cow's or goat's milk, a really good, reliable make must be obtained. If this does not agree with the child after a fair trial, it will be necessary to try another kind. One of the writer's babies, when eight or nine months old, was given a well-known and excellent make of food, but thrived so little on it that it was changed for another equally good and famous. On this latter the baby made splendid progress. The next baby was given this latter food since it agreed so well with the first baby ; the results, however, were unsatisfactory, and, finally, it was given the first baby's rejected food, with the greatest success ! But each food must have a proper trial; however good it may be, if the child is very delicate or weak, great changes cannot appear all at once. The food should be freshly made each day, twice a day in hot weather or if there is any chance of the milk turning. It should always be tasted before being given to the child to see that it is neither burnt nor sour. It should be warm, not hot. If the nurse presses the bottle, half a minute after the food has been poured into it, against her neck, she can better judge its degree of warmth than if she tests it by hand alone. When made, the food should be strained into a jug, stood in a cool place, and, if necessary, in a basin of cold water, and *always completely covered over* to prevent dust and flies from getting in. Not more than the right amount to be taken should



be poured out of the jug and heated up at each time.

Whatever food be adopted, the child should be given as well a teaspoonful or so of grape or orange juice every day, or, if this acts too aperiently or otherwise disagrees, once or twice a week. A baby requires nothing else. For the first three years of its life *milk must be its staple food*. Yet one shudders when one calls to mind the manifold madnesses of diet, the totally unsuitable kinds of food which some mothers, bereft of sense, inflict on their hapless and helpless babes.

Over-feeding is a common error. A baby's stomach can only digest and hold a certain quantity of food, and when this is exceeded trouble results—colic, flatulence, convulsions, and general unhappiness.

After each meal, or, at any rate, every morning and evening, the baby's mouth should be very gently washed inside with a small long piece of clean absorbent gauze wound round the mother's little finger, or with a corner of clean linen dipped in a little glycerine and borax.

*Baby's Motions.*—A baby's first motions are dark in colour, afterwards becoming more or less about the consistency and colour of custard. There should be not less than two and not more than three or four of them in the twenty-four hours. When they become green and curdled, or pale and dense, or when diarrhœa sets in,



great care should be taken. When of an offensive odour a small dose of castor-oil may be given. If artificial food is being used, the unhealthy conditions of the motions may show an excess of proteids, and so the food must be still further diluted with water. Diarrhœa, especially in the summer months, is more fatal to babies than any other disease. Sometimes the addition of lime-water—a tablespoonful to each bottle of food—or a teaspoonful or two of rice-water, and the omission of the fruit-juice for a few days, may check it. Sometimes it is better to give first a teaspoonful of castor-oil to relieve the system of anything which may be causing the purging. *Slight* looseness of the bowels requires no checking.

Constipation must be scrupulously avoided. As a cure for it, the baby's abdomen should be firmly and very gently rubbed round with a little oil every morning and evening, and a little sweet fruit-juice may be given. A teaspoonful of cold water, given before a meal, sometimes has the desired effect. A very good remedy is to give a one-ounce ball enema filled with clean, warm (not hot) water which has had a little pure soap dissolved in it. During the little operation of filling the enema with water, care should be taken that no air gets in. The ball should be squeezed quite tight, then held with the nozzle right under the water and slowly allowed to fill itself. After smearing the nozzle thoroughly with vaseline, it is then

most carefully inserted just inside the anus or external opening of the bowels, and the ball gently squeezed and *held squeezed while it is being slowly withdrawn*. The baby should then be held comfortably over a little vessel while the enema is taking effect.

As an aperient, a teaspoonful of castor-oil warmed and given in milk is very useful. Although it is not to be used more than is necessary, castor-oil should always be kept in the house. If there is any soreness or chafing, zinc ointment should be applied, especially between the folds of the skin and groin and round the back. A little zinc ointment or vaseline put on each time the napkin is changed usually prevents any soreness or smarting and adds much to the baby's comfort.

*Baby's Napkins.*—The napkins should be of soft Turkish towelling made according to directions in Chapter XIII. *Care must be taken to change them when necessary, and to see that each one is thoroughly washed and dried after use before being again put on.* Diarrhœa is often caused by the mother's or nurse's ignorant or lazy habits over this most important part of the baby's toilet. The baby must be taught regular habits as soon as possible. Thus, if a few-weeks-old baby is held out directly it is dressed after its morning bath, or if an enema is given then (if there is constipation) for a few days running, one regular habit may be gradually formed which should be practised

every day through all the baby's future life. And apart from the inculcation of this healthy habit, by holding it out at certain regular hours much washing can be saved.

*Treatment of Navel Cord.*—The cord should be carefully washed and dressed directly the baby has been dried after its bath. A hole can be cut in the centre of a clean piece of soft absorbent cotton-wool—some antiseptic material for dressing it is really safest—and the cord pulled through and dusted with antiseptic powder. Then the ends of the dressing are folded over, and the little flannel band or binder keeps it in position. Mothers must notice that the band does not “ride up” as it is very liable to do, as this would pull the cord and be most irritating to the baby. After a few days' dressing, the cord dries up and drops off of its own accord. Until the navel is quite healed and dry, it should be dusted with antiseptic powder.

*Baby's Bath.*—During the first month or two, many doctors recommend that the baby should have one warm bath every morning and then merely a quick sponge over at night when its clothes are changed and its nightdress put on. A baby is easily exhausted and chilled, so everything should be arranged for the bath before it is begun—the water heated, the towel, night or day clothes, and clean diaper at hand, and the meal which is to follow (never immediately precede) the bath conveniently near. The heat of the water can be easily judged by the bare

elbow ; or better still, by a bath-thermometer, which should register 100 degrees during the first three months.

After the baby's mouth has been washed out and its nostrils wiped out with pointed ends of wet cotton-wool, the usual procedure for the bath is as follows. Handling the baby as little as possible, lay it across the knee on a flannel apron and slip off its clothes. Keep the towel or flannel apron round it while its head is gently and thoroughly soaped and its face sponged, and then hold the head over the bath (face upwards all the time), moving the body correspondingly, and letting the neck rest firmly on your left hand. Sponge the head with the right hand, and if soap is used on the face be careful that none goes into the eyes. Dry the head gently and quickly with the baby lying across the knees, and then soap well the entire body. Hold the baby in the bath on your hand, leaning against your arm, and sponge it well. Most babies love their baths if they are properly given. Move gently ; sudden movements are apt to hurt or at least frighten them. Lift the baby out of the bath, lay it face downwards across the knees, and cover it up with the towel. Rub dry and powder, then turn the baby over, pulling the towel at the same time so that its dry back comes in contact with dry towel, and dry the front thoroughly, being careful to wipe and powder under the arms and chin, and between the thighs. Dress the navel as directed,

and slip on quickly the little garments. If a flannel band or binder is used, have it rolled ready and unwind it round the baby—not too high up or it will cut the armpits and pull the cord, but well round the hips. Then fasten it in front with safety pins or turn the baby on its face and sew the binder up behind, holding it firmly across the hips and beginning sewing always from the lower end up the back. Let the band slacken as it reaches the chest. *It should never be put on in the least tightly, but merely as a comfortable, warm support.* If put on tighter than is necessary, it is as uncomfortable to the baby as it is harmful. Besides chafing its armpits and thighs, it compresses its internal organs, thus, among other things, dangerously interfering with its breathing. After the band, put on the vest, back-flannel, napkin, and dress, wrap a little flannel or shawl round it, and feed it. After feeding, raise it for two or three minutes, that it may dispense with any wind which troubles it ; then put it down by its mother or in a cot with a hot-water bottle, and let it sleep. After its morning or evening toilet a baby should sleep well, and no person nor thing should be allowed to disturb it.

*Sleep.*—During the earlier months a baby should spend most of its time, when it is not feeding, in sleep. Twenty out of the twenty-four hours is not too much. In fact, it is impossible for a baby to have too much sleep. The more it has the stronger it

grows. This must be *natural* sleep; the practice of inducing sleep unnaturally—that is, by the use of medicine or by the nursing mother drinking alcohol and even giving it to the baby—is one which cannot be too strongly condemned. When it does not sleep well, a change of clothes—especially a fresh napkin—or a warm bath will prove of assistance. Sometimes a change of food may be necessary. The room should be properly ventilated, and the bed comfortable and warm. After its morning bath and meal a baby can be tucked up in its cot, or, better still, can lie on a little soft bed in its perambulator with a rubber hot-water bottle by its side. Its eyes should be shaded from the light, and sufficient light, woollen clothes wrapped round it to ensure plenty of warmth. In a sheltered place in the garden it should sleep for two or three hours. If it rains, a mackintosh covering can protect all but the baby's face, and this should be well sheltered by the hood. If the baby is born in the summer, there is no difficulty in beginning this fresh-air sleeping after the first two or three days, but in winter it is better to wait until there is a fairly mild spell of weather before beginning it. When a baby is once used to it, this can be continued in all weathers, provided it is warmly clad, and, except in hot weather, accompanied by a hot-water bottle, and provided also that the rain or snow cannot soak down its neck through the covering.



An eye should always be kept on cats when there are any near a sleeping baby. They love the warmth of it, and have been known to suffocate babies by lying on their chests or faces. The perambulator used must always be the kind in which a baby can lie down flat. Any sitting position for sleeping is bad even when the back is comfortably supported. To tie up a tiny mite in a chair or mail-cart with its legs straight out in front of it—and almost always insufficiently clothed—is positive cruelty. The band which supports it cuts into its body, or else loosens and lets the child slip down until its chin is resting on its chest, and the probable injury to its spine from such a humped-up, unnatural position should be obvious to a woman of even puny intelligence. Even when awake, a baby should always, during the first few months, have its back and head thoroughly supported. To sleep lying flat on the side, with the softest and smallest of pillows, with all tight bands loosened and wet garments removed, with freedom to move and abundance of fresh air—how otherwise can a baby sleep comfortably and healthily? Rocking the cot or carrying the baby about in the arms is not, as a general rule, an advisable proceeding to induce sleep. Neither should the baby lie down for too long at a time.; a little carrying about several times a day is good for it, and especially in the case of a feeble baby.

Mothers, in their well-meant efforts to avoid



spoilings their babies, must beware of going to the other extreme. Children generally, and babies in particular, are such tender, susceptible little folk that it is always best to err on the side of kindness than on that of too great severity.

Until the sixth or seventh year, the mid-day nap, or at any rate rest, should not be missed. Even if the child does not sleep, this quiet repose in a horizontal position is of much value. Bustle and work will come soon enough, let it rest while it may. Let it develop that bodily frame and build up that nerve power on which its future welfare—indeed, its very life—depends.

*Vaccination.*—A baby should be in good health when vaccinated. About four days after vaccination the vaccine begins to take, the spots become more or less inflamed and gathered until the ninth day, and it is necessary to carefully protect and dress them. If vaccination can take place before the services of the monthly nurse have been dispensed with, it is the better plan. The irritation of the spots may cause the baby to be fretful and feverish, and may even give it a little rash, but this does not last long. After the ninth day the inflammation gradually subsides, all that is necessary being to keep the spots covered over with perfectly clean material all the time, to prevent anything from touching them, to lay the baby down on its other side, and to be very careful not to pull the heads off any of the spots when dressing

them. They will come off without any assistance when properly dry. When the part vaccinated does not "take" properly, it is necessary to have it done again. When vaccination is put off until the baby is older, it may by then have learnt to know where the irritation is, and the spots will probably receive much more rubbing than is good for them. Also, teething may be then to the fore, so that the poor infant has more troubles than it can comfortably contend with.

*Muscular Development.*—A baby ought to be able to smile at six weeks old, and to hold up its head and to laugh by the third or fourth month. When it cries, tears do not generally appear in its eyes until about the third month. It should attempt crawling at the seventh or eighth month, but standing, walking, and talking should never be hurried. A baby has only a certain amount of energy and nerve force, and when this is employed in one direction—such as in cutting teeth or in standing, it cannot be also used in another direction—such as in walking or talking. Some are early with one process, some with another, others are slow with all and yet quite healthy. However, when a baby is markedly backward in anything it is best to consult a doctor.

*Teething.*—Teething usually begins about the seventh month. The first teeth to be cut are generally the two central lower incisors, followed in another month or so by the two upper incisors.

About the ninth or tenth month a tooth each side of the upper central two is cut, and a short time afterwards the two corresponding ones in the lower jaw. From the twelfth to the seventeenth month the first four back teeth—two in each jaw—are cut. These are followed by the four canine teeth, the two lower sometimes called the “stomach” teeth, and the two upper known as the “eye” teeth. The four back double teeth come last of all. A child has usually its first complete set by the age of two and a half.

*Weight.*—An average baby is said to weigh about seven pounds at birth. During the first week it may lose three or four ounces ; in any case, it seldom gains on its birth weight. The second week a healthy baby gains six to eight ounces, and this increase should be noticeable every week during the first six months. After this period teething and other difficulties may lessen it by several ounces a week without the child being in any way the worse. The great point to remember is that the baby must increase steadily, if slowly, in weight. By the eighth week it should weigh (if about average weight at birth) from nine to ten pounds.; about the twelfth week from eleven to twelve pounds. At six months it should nearly or quite double its birth weight ; at a year old it should be nearly three times its birth weight. The open space called the “fontanelle” on the top of a baby’s head should close between the eighteenth and twenty-fourth month.

*Height.*—A baby's average height at birth is twenty inches. It increases to twenty-seven at about six months, and to thirty-one inches at a year old.

*Baby's Short-coating.*—A baby is usually short-coated at three months old in summer or four months in winter. When this change is made care should be taken that its legs and feet are kept warmly clad, or the loss of the long-clothes may severely chill it.

*Simple Remedies.*—Castor-oil, as already stated, should be kept in the house in case of bowel trouble.

Ipecacuanha wine may be necessary if false croup or laryngeal catarrh occur, although sometimes hot and cold applications to the throat and the inhaling of the steam from hot water are sufficient. (Membranous croup is, of course, diphtheria.)

Camphorated oil is extremely useful in coughs and colds for rubbing the chest, throat, and back. It is better slightly warmed before use.

Vaseline eases a tight, stuffy cold when rubbed over the bridge of the nose, especially if a sponge wrung out in hot water is first applied there. Also it is useful to rub on inside the diaper to prevent chafing.

Zinc ointment or Fuller's earth ointment is especially good for preventing soreness or chafing, and for generally healing an irritated skin.

For convulsions put the baby in a hot bath

with cold applications to the head, and send for a doctor. Simple convulsions are frequently due to constipation or to some other bowel derangement, and in this case an enema is needed. If due to over-feeding or to unsuitable food, it may be necessary to induce vomiting, by giving the baby warm water to drink with a little salt dissolved in it.

Dill-water is of use in relieving wind or flatulence. After a few drops have been given in a little warm water, the baby should be turned over, face downwards, across the mother's knees or over her shoulder, and gently patted on the back until the wind is expelled.

For night-terrors caused by a wrong diet, over-excitement of brain, &c., let the child sleep with a light in its room, and treat it with much kindness. Sometimes this complaint is of a serious nature and requires professional treatment.

Cold feet may be cured by rubbing and kneading while the baby is young; directly it is big enough a good romp with it is the healthiest way, as this restores naturally its circulation.

For want of appetite, find out the cause. A baby requires more or less sameness of diet, but a young child should have wholesome variety in its food. Any particular article of food which it dislikes should not be forced on it.

*Concerning Punishment.*—If a little punishment is occasionally necessary as the child grows

older, the mother should administer it herself. She ought never to allow a nurse to whip or to shake it. Neither should a nurse or any one be permitted to frighten a child by telling it stories of hobgoblins or ghosts or anything of a like nature. *To do so is gross cruelty.* Blessed is the nurse or mother who has "a childly way with children," and blessed are the children too. A child errs far more through being misunderstood and through misunderstanding than ever it does through actual naughtiness. In punishing it, a little, given firmly and kindly, goes a long way. Severe punishment goes a very little way—and very likely even then in the wrong direction—and may ruin the disposition and physical health. It is highly important for the mother to remember that she must not lose her temper while administering correction to her child; if she does, she is absolutely certain to punish it harshly and unfairly. A sensitive child feels and deeply resents the snarls and snaps and unnecessarily severe snubs which an irritable parent bestows on it. Obedience and truthfulness, the two bulwarks of a child's character, to say nothing of its affection and reverence, are encouraged in every way better by love which is kind but firm than by the harshly applied measures or, on the other hand, by the feeble half-measures which artificial or blind love applies. A child always reacts sooner or later to any outward influence on it. "That is why children's lives are a series of refined judg-



ments, not to say prejudices; and to efface a rapid but partial perception in order to make way for a more general one, time is necessary.”<sup>1</sup>

*The Duty of Parents.*—At the present day baby-mortality is high enough in all conscience, but it is astonishing that it is not still higher when one notices the incapability of bearing and of managing babies which is to be seen on every hand. Not only is there this incapability—in spite of the splendid efforts made successfully in many directions to combat it, but an obstinate idea holds sway, especially among the lower classes, that it is useless to try to avert the consequences of heredity. According to many, for instance, an asthmatical or consumptive parent has children born with this disease already in them and therefore it is useless to fight its presence. (This in no way prevents them from marrying and having children!) If they would but believe that it is some weakness, some tendency to the disease, *and not the actual disease itself*, which is in most cases inherited, if they would but see that lungs with a tendency to consumption, weak lungs but not yet diseased, are capable of being made strong and kept strong by fresh air first of all, how much they might do by giving battle instead of by foolish resignation!

A woman who makes a bad mother has more cause to be deeply ashamed of herself for this reason than she has or ever will have for any

<sup>1</sup> Goethe.



other. She is a disgrace to her sex. A bad mother may mean a careless or indifferent one, as well as one who is wilfully ignorant and stupid, or cruel and wicked. There are various grades of badness, but cowardice is the root from which many of them spring — that cowardice which lets things slide, as well as its offspring, cruelty, which wreaks its spite or folly on weaker things.

## CHAPTER XVIII

### MAN'S LENGTHENED INFANCY

"I desire a greatness of soul, an irradiance of mind, a deeper insight, a broader hope. Give me power of soul, so that I may actually effect by the will that which I strive for. . . . Give me life strong and full as the brimming ocean; give me thoughts wide as its plain; give me a soul beyond these."—RICHARD JEFFERIES.

SCIENCE has convinced mankind once and for ever that the higher forms of life are derived, line upon line, from lower forms. Man is the topmost rung in the ladder of organic beings. As the intelligence of animal life gradually developed, "a point must have been reached in the history of one of the primates, when variations of intelligence were more profitable to him than variations in body. From that time forth that primate's intelligence went on by slow increments acquiring new capacity, while his body changed but little. When once he could strike fire, and chip a flint, and use a club, and strip off the bear's hide to cover himself, there was clearly

no further use in thickening his own hide, or lengthening or sharpening his claws." <sup>1</sup>

With this growth and variation of intelligence, with the evolution of memory and the influence of the affections, the term of infancy naturally increased in duration. Reflex action, such as the automatic closing up of the sea anemone when touched, had developed into its higher form—instinct. And this instinct of self-preservation acquired by the young of the lower animals is engraved on their nerve-centres before birth. So that by this engraving, which is the result of former generations' experiences coupled with elementary but developing intelligence, they are already at birth more or less equipped for the struggle for existence. A chicken pecks at the ground for food directly it has taken breath after the arduous task of breaking its shell. A young tumbler pigeon will "tumble" before it has seen any other pigeon perform this feat. A baby cuckoo, with blithesome disregard for the feelings of its foster brothers and sisters, ousts them from the nest because its instinct warns it that, with more mouths to feed than its own, there will not be sufficient food for itself. Instinct teaches the lapwings and thrushes to obtain their breakfast of worms in the same way that personal experience teaches the villagers of Laplaigne to obtain worms for their flocks of ducklings; a bird approaches a worm-cast and hops violently on

<sup>1</sup> John Fiske, "Through Nature to God."

the ground, whereupon the worm—whether from curiosity to see what is happening to the soil overhead or from fright cannot be ascertained—appears, and is promptly and irretrievably seized. The Laplaigne folk have learnt that they can dance and skip on ordinary low ground, not necessarily on worm-casts, to secure the worms; but the bird's instinctive idea is sufficient for its needs.

But when the intelligence that it is necessary to impart to the offspring becomes more and more complex and aspiring, when instinct borders on intuition, there is not sufficient time before birth for the offspring to have so much registered on their nerve-centres. Therefore, in proportion to the amount to be imparted, the time of infancy of the higher animals lengthens out. And so between the highest animal, *man*—Nature's masterpiece, “with God's Image stamped upon it and God's kindling breath within”<sup>1</sup>—and any other lower one, there is an immeasurable gulf of time fixed by this evolution of physical life.

A human baby has the bare instincts of feeding, of sucking milk for self-preservation, and of crying in self-defence, but in spite of these it is a most utterly helpless morsel of humanity. Infused through every cell of its being at birth are the multitudinous impressions of heredity, but of itself it cannot turn one of these to account. Without its mother's

<sup>1</sup> E. B. Browning.

care it is incapable of existence, without her love it is crippled, until the love of others, and for others, is shed abroad in its heart. It is plastic, lovable, and teachable, capable of being moulded into something or nothing by its parents. And as well as its capability of benefiting or of the reverse by its upbringing, and as well as its inherited tendencies, it has lessons of life to learn from individual experience and effort.

From such lessons the wisest parents cannot guard it, except by early preparation. It was said of his mother, by a noble Scotchman, that to her he owed everything through this particular lesson she had taught him in his boyhood—*not* how to obtain that which he wanted, but how to learn to do without it. So a child, taught lovingly how to take its little tumbles, not shielded so carefully that such things are impossible, learns three things: pluck in bearing them, perseverance in getting up and going on again, and a certain healthy and necessary amount of independence.

With these three shields of defence, severer falls, or even still severer successes—in that they bring about the possibility of greater heights from which to fall—are safely borne, in spite of bone being no longer supple and of habit having hardened into character.

To bear her children healthily, to rear them wisely as well as happily, to make good citizens of them, to enrich humanity with new life made

beautiful through love, to give God greater glory—what more stupendous purpose could a mother fulfil?

“Blessed is he who has found his work ; let him ask no other blessedness. He has a work, a life-purpose ; he has found it and will follow it ! . . . Labour is Life : from the inmost heart of the Worker rises his god-given Force, the sacred celestial Life-essence breathed into him by Almighty God. . . . Thy heart and life-purpose shall be as a miraculous Gideon's fleece, spread out in silent appeal to Heaven ; and from the kind Immensities, what from the poor unkind Localities and town and country Parishes there never could, blessed dew-moisture to suffice thee shall have fallen !

“Work is of a religious nature ; work is of a *brave* nature ; which it is the aim of all religion to be. . . . To thee Heaven, though severe, is *not* unkind ; Heaven is kind—as a noble Mother ; as that Spartan Mother, saying while she gave her son his shield, ‘With it, my son, or upon it ! ’ ” †

† Carlyle.





PART V

GENERAL HYGIENE



## CHAPTER XIX

### HEALTH

"Mortal mixed of middle clay,  
Attempered to the night and day,  
Interchangeable with things,  
Needs no amulets nor rings,  
*Guy possessed the talisman*  
*That all things from him began.*

He had so sped his wise affairs  
That he caught Nature in his snares.

And the world's sun seemed to rise,  
To drudge all day for Guy the wise.

Belonged to wind and world the toil  
And venture, and to Guy the oil."

—EMERSON.

HEALTH has been defined as "every organ working easily." It is the "perfection of physical organisation, intellectual energy, and moral power." It implies the painless discharge of the functions of life, and is a state directly opposed to disease.

Health produces harmonious development,

and this finally produces beauty, for beauty is nothing more than the strictly normal. "A sound mind in a sound body" is a blessing greatly to be desired, and, when possessed, greatly to be cherished, since on it depend the life and happiness of a human being and, in a responsible degree, of that being's descendants. The vast (but not the *all*-) importance of heredity is now so widely recognised that its existence has ceased to be a matter of dispute, and the responsibility it involves is, by degrees, dawning on the mind of mankind.

To ensure health, the laws of Nature must be obeyed. By living a simple, open-air life, with pure food and water, plenty of exercise, avoidance of excess in anything whatsoever, attention to the natural functions of the body, sufficient sleep and suitable clothing, abundant health may be obtained and kept. Added to this, a happy life in the home is "a consummation devoutly to be wished" and worked for. Frequently it is to be found that one unhappy or selfish member may destroy the peace of a whole family, such a misfortune being sometimes the result of physical, *as well as mental*, ill-health. Persons prone to irritability, indolence, or cowardice, through unhealthy living coupled with no great strength of character, are by no means uncommon. Neither are those other souls who, in spite of feeble and unhealthy bodies, expend themselves in living for others, distributing happiness, and

so—and only so—learning the secret of its possession.

When health receives no consideration, punishment follows sooner or later, “for strength of nature in youth passeth over many excesses which are owing a man till his age.”<sup>1</sup>

Pure air, sunlight, sleep, exercise, food, and water are the six important points to consider with regard to health.

*Air.*—Fresh air is a necessity of life. Too much of it is impossible, while with too little of it life itself becomes impossible. Each breath of air inhaled enters the two sponge-like masses of cells and bloodvessels called lungs, and through them supplies the blood with that vitalising, necessary food *oxygen*. In place of this oxygen the breathed-in air receives carbonic acid gas, so that when it is exhaled from the lungs it is poisonous. For carbonic acid gas is the outcome of the impurities of the body, and so is destructive to life. Hence can be seen the gross folly of inhaling another person's breath, for when stale air enters the lungs some of its oxygen has already been exchanged for carbonic acid gas, and for that still more virulent poison known as organic matter. Organic matter is composed of complex chemical compounds which are given off by the lungs and skin, and which very readily decompose, giving rise to a close, unhealthy smell. One night spent in an unventilated room, one

<sup>1</sup> Bacon.

single large dose of poison thus taken, may result in headache, sickness, faintness, or inertia, while repeated doses, by lowering the tone and resistance of the body, can and do bring on, indirectly, consumption, anæmia, and many other evils. A candle cannot remain alight in a small air-tight box or glass case. The want of fresh air, of oxygen, and the presence of carbonic acid gas, extinguishes it, just as surely as the want of air in a badly ventilated room and the presence of this poisonous gas gradually undermine the health, and eventually sap away the life of its occupants. That awful Black Hole of Calcutta, with its seething mass of humanity fighting for air and dying for the want of it, serves as an illustration of the fact that oxygen is inseparable from life.

Yet in spite of the necessity of fresh air, it is astounding to notice that there still remain many people—even among those who ought to know much better—who, through sheer ignorance of, or indifference to, the consequences, sleep every night with windows, doors, and even chimney ventilators closed. General ill-health, consequent upon the state of lowered vitality induced by inhaling poisonous, used-up air, follows sooner or later. Persons with constitutions so weakened are especially liable to attacks of disease, infectious or otherwise, because their powers of resistance are thus enfeebled. They not only contract illness quicker than those who make a point of breathing fresh air, but their

illness takes hold of them more severely, and its effects are more lasting.

The air of a closed-up room ten feet high by ten feet square—that is, one containing a thousand cubic feet of air—becomes unhealthy if *one* person breathes it for *twenty minutes*. And how much more unhealthy must this naturally become when several persons occupy the same room! Yet there are many people who will sleep quite contentedly in a room even smaller than this, for six or eight hours at a stretch, with merely the slight assistance rendered by ill-fitting, closed windows and doors, and by walls and floors which are not impervious, in admitting minute currents of fresh air.

It is necessary to study the quantity as well as the quality of the fresh air, and to gradually accustom oneself to living, awake or asleep, in as vast an amount of it as possible. Provided that sufficiently warm clothing be worn—an open window is well worth an extra blanket—and sitting or lying in the direct current of a strong draught be avoided, fresh air can only have happy consequences. The ease of health increases as disease correspondingly decreases. (The evil of draughts even is frequently exaggerated, but there are undoubtedly many people who have grown accustomed through bad health to finding them troublesome.)

To breathe properly every muscle concerned in the act of respiration must be capable of acting freely, and if the clothing be so tight



or the attitude so stooping that it is impossible to fill more than the upper part of the lungs with air, then the lower part may become gradually unhealthy and ripe for disease.

Few habits are more profitable than the one acquired by spending a few minutes daily in the performance of breathing exercises. The fresh air should be taken in through the nostrils very slowly, thus gradually filling the lungs from the diaphragm upwards. After retaining it for a few seconds—which period of time can be gradually increased, with advantage to the chest measurement as well as to the general health—the breath should be forced out loudly, and as slowly as possible, through the mouth until the lungs are quite empty. After another pause of a few seconds, during which no air is allowed to enter the lungs, another deep and slow breath should be taken, held, and then exhaled, and so on.

Many maladies are driven away, and many more prevented altogether from arriving, at the cost of very little trouble on the subject of fresh air. When a proper supply of it has once been arranged for, and when each person has grown by practice into a sensible habit of seeing that his or her window—or, failing that, door—is open every night, and that the fresh air is unhampered by curtain or blind from freely entering and sweeping round and purifying the room, it will be found that a room without such purification becomes absolutely unbearable with

its close, stale air. To those accustomed to fresh air, even one night spent with the window shut means unrefreshing rest and unpleasant feelings of lassitude and headache in the morning.

These feelings show the evil done by merely a few hours of impure breathing. By his breath a man poisons the air, burdening it with carbonic acid gas and organic matter ; and then, if there is no fresh air to take its place, he breathes it again and *it* poisons *him*, and so the process continues. The bad germs of disease grow and multiply in his lungs and blood, and eventually become sufficiently powerful to destroy his life.

“ There are three wicks to the lamp of a man’s life : brain, blood, and breath. Press the brain a little, its light goes out followed by both the others. Stop the heart a minute, and out go all three of the wicks. Choke the air out of the lungs, and presently the fluid ceases to supply the other centres of flame, and all is soon darkness, stagnation, and cold.”<sup>1</sup>

*Sunlight*.—The influence of light, and more particularly of sunlight, on all organic life is far greater than is generally imagined. It can be proved by one intelligent glance at the vegetable world. Plants of every description, from the humble blade of grass to the mighty elm, could not live without light ; flowers of all kinds, from the tiny scarlet pimpernel to the gigantic sunflower, naturally turn their faces sunwards. If a potato be placed in a one-

<sup>1</sup> Oliver Wendell Holmes.

windowed cellar, it will sprout and grow along the floor towards that solitary window, its degree of growth corresponding to the amount of light available, thus showing how necessary to the potato's very existence is the light of the sun.

In like manner, the longer a human being stays indoors, in close, dusty, and sometimes artificially lighted rooms, the more pallid and diseased does he or she become, while every minute spent out in the open air, and particularly in the sunshine, helps on the cause of health. There is no tonic so powerful as the sun's rays for bringing colour to the cheeks and brightness to the eyes. Sunshine means death to many of the horrible germs that spread disease, and the less of its light there is the faster do they multiply.

A great metaphysician observes how, in some of the deep Swiss valleys hemmed in on all sides by the mountains, where the direct rays of the sun cannot penetrate, the traveller is startled and horrified by the prevalence of idiocy, of cretinism, and other diseases, among the inhabitants. Although this is partly caused by other reasons, such as intermarriage and inherited goitre, he is assured that in a great degree it is accounted for by the lack of strong light, of sunshine. It is a fact that a tadpole kept in the dark will live and die a tadpole, never progressing in development to the frog state, and incapable of propagating its species.

It is very necessary that a sick-room should have a good allowance of sunshine, or at any

rate of strong, properly directed light, except in cases of inflammatory diseases of the eye and brain.

Of all the many and various kinds of bathing now in vogue, the sun-bath has much to commend it, and is said to be unrivalled in its healing properties. With a little manipulation it is more or less easily procurable, and those who have given it a fair trial consider it well worth the trouble. Very short baths must be indulged in at first, and the back of the head and neck should be carefully shielded. Persons of nervous temperament should be careful not to overdo this stimulative treatment. In the uncertain climate of England these baths are usually possible only in summer ; they should never be prolonged when the air is cool, or when there is any draught around the bather, because this causes the heat of the body to be too quickly given off, and chill results.

Because of the power of the sun's rays to actually destroy most of the microbes which produce disease, there is a wonderful amount of truth in the old saying, "Let in the sun, let out the doctor !"

*Sleep.*—

"Sleep that knits up the ravill'd sleeve of care,  
The death of each day's life, sore labour's bath,  
Balm of hurt minds, great Nature's second self,  
Chief nourisher of life's feast."—SHAKESPEARE.

Sleep is one form of brain anæmia ; physio-

logically, it is a flowing away of blood from the brain. During sleep the cells of the brain recuperate from the strain imposed on them by the many hours of wakefulness. The energy employed during the day by the exertions of the body and brain is now diverted to this work of recuperation, this regathering of expended force, while most parts of the muscular system are relaxed and resting, and will and consciousness are suspended.

When a condition of fatigue is brought on by brain work, the poisons manufactured thereby cause the bloodvessels in the brain to contract. Comparative anæmia of the brain is thus brought about, and the brain is saved from further exhaustion because work becomes impossible and sleep usually comes on. With manual labour a similar state of things prevails, for the poisons generated by tired muscles cause such weariness that the continuance of exertion in that particular spot is effectually prevented.

When the body is at first resting in bed, the brain may feel temporarily less inclined for sleep than it did before lying down, because in the horizontal or lying-down position the heart naturally finds it easier to pump blood into the brain than in any other position in which the head is considerably above the level of the rest of the body.

That the majority of people do not sleep enough is a well-attested fact. Tesla states that the reason why some races of negroes live

to such a good old age is on account of their sleeping so much. When the brain is not given sufficient rest and refreshment it becomes over-worked and strained ; it refuses to sleep because mental activity dilates it by filling it with blood, and if this state of things continues it is in danger of withering, and so of becoming insane.

As far as it is known, the first part of the night is usually passed in more or less dreamless sleep, when it is to be presumed even the brain itself is quietly resting. This stage is followed by another, in which certain adjoining, or it may be disjointed, parts of the brain become refilled with blood and reinvigorated, and to the ideas then formed or connected together it is probable that dreams are largely due.

It is important to breathe through the nostrils during sleep, because they are supplied with membranes and hairs which not only warm and soften the air taken in, but which also act as a filter in preventing many impurities from entering the lungs. Also breathing through the nostrils prevents snoring.

The highly strung temperament requires more sleep than the calm, lymphatic one, for it is a constitutional law that where power is expended with great rapidity it is but slowly recuperated. Women will find their youth and beauty last much longer if they will but take sufficient sleep. No hard-and-fast rule can be laid down concerning the amount necessary, because this is



largely a question of individual health and constitution ; but the average person should endeavour to obtain eight, or, at any rate, seven, hours' sleep nightly, while much more is of course necessary for children. And that healthy sleep may be procured, that all the good possible may be obtained during this period, there are two requirements which must not be forgotten : the proper ventilation of the room first of all, and the cleanliness of the body.

To take the former : there must be good material with which to supply the lungs in their involuntary, never-ceasing operation of breathing. If bad material, bad air, is given to them, the life of the owner of the lungs becomes gradually poisoned. Why this is so has already been explained.

Concerning the cleanliness of the body, it must be remembered that the skin, during sleep, gives off organic matter through millions of perspiratory glands or pores. And since even one square inch of the skin's surface contains something like two thousand eight hundred pores, it is easy to see how necessary, in order to aid its healthy action, is a thorough bathing of the body every day. It is well, therefore, to cleanse as much of it as is necessary or possible at night as well as in the morning, so as to remove every hindrance to health which dirt may cause.

After eating heartily, a short rest or sleep is of benefit to the system, since the blood, when



not employed elsewhere, has all the more power to devote to the business of digestion.

To induce sleep, all worrying or disturbing thoughts of any kind and all feelings of discomfort should be avoided, and the use of a little will-power may be necessary in order to keep steadfastly in the mind the single idea, the belief in the coming of sleep. Those who have their wills sufficiently developed and under control can practically hypnotise themselves to sleep at any time. On the other hand, too great an effort on the part of the mind to induce sleep may have the opposite effect, because the act of thinking hard causes a greater flow of blood to the brain, and renews activity, by which sleep is driven still farther away.

An insufficient quantity of clothing or of food frequently results in sleeplessness. Actual starvation, however, though generally causing sleeplessness, and thereby threatening insanity, is capable of producing sleep. Drug-taking, to relieve insomnia or any other malady, is, except in extreme cases, a thoroughly unwholesome habit.

An abundance of fresh air, a cleansed skin, a light, nourishing meal taken not later than eight o'clock in the evening—and preferably earlier, a few simple drilling exercises if the body be not already sufficiently exercised, and a good conscience with a will strong enough to dismiss every disturbing thought—these are, one and all, excellent aids to healthy sleep.

Night garments of some woollen material if it can be worn, with just sufficient bedclothes to keep the body warm, aid the action of the skin and prevent chill. For those whose vital powers are below par nun's veiling, or sheets of some similar material, or even blankets—used instead of linen or cotton sheets—are very beneficial. Flannelette, because of its exceedingly inflammable nature, should be avoided.

One hour of sleep at night is said to be worth three after the sun has risen. And both for rising and retiring regular hours should be observed, as Nature herself teaches us in the punctual habits of birds, beasts, and flowers. It behoves us to take more than a little passing thought as to how, when, where, and why we sleep, since at least one-third of the lives of most of us is spent in this condition.

*Exercise.*—The importance of exercise can scarcely be over-estimated. It strengthens the muscles and expands the lungs. Also, by quickening breathing and accelerating the action of the heart, it causes a bigger supply of oxygen—the essence of physical life—to be brought into the body, and a greater quantity of carbonic acid gas to be dispensed with. Thus the blood, purified by the presence of the one and absence of the other, eases and invigorates in its circulation the entire system.

To be healthy, to be in tune, all parts of the body must be kept in use ; otherwise that particular part which is neglected becomes weak

and wasted and liable to be attacked by disease. A striking proof of this is seen in the common custom in parts of the East of beggars who, to excite pity, will sacrifice one of their arms by tying it up against the head, and by keeping it there until, from its unnatural position and from the interruption caused in the blood's circulation, it becomes utterly useless and finally withers.

Those who, from choice or necessity, lead sedentary lives, who work their brains but neglect their muscles, are liable to suffer from diseases brought on by these conditions, such as chronic constipation, with its train of evils, gout, consumption, liver and kidney affections.

The brain is no more exempt than any other organ of the body from becoming withered and diseased through unemployment. The less it is used, the less power and inclination is there to use it, until eventually it may sink into a state of lethargy, from which it becomes more or less impossible to rouse it. Thus it is possible for a farm-labourer, with health and powerfully developed muscles, to possess a brain becoming rusty through disuse, or narrowed more and more by being continually used in one direction. This narrow groove of thought may become still more restricted, so that anything outside it, outside himself and his daily round, gradually loses all interest for him.

Exercise must be moderate. If taken up suddenly and violently by those unaccustomed to

it, or if pursued immoderately by the practised and hardy, serious results, such as an overstrained and permanently-injured heart, may follow. Schoolgirls and boys—and even those old enough to know better—sometimes suffer untold harm by over-exerting themselves, their minds as well as their bodies, in the enthusiasm of competition. They live to regret it in after-years, and to fix the blame, not so much on themselves as on those to whom the care of them was entrusted.

Why should it be necessary to stop exercising when the muscles become fatigued? Because the fresh alkaline muscles have been converted by a natural chemical change into tired acid ones, and therefore rest must be given during which this acidity, this waste product which can become actually poisonous, is thrown off, and the former invigorating alkaline state is regained.

Walking and swimming are excellent forms of exercise, because they bring practically all the muscles into action at the same time. But to prove really beneficial they must be performed intelligently. For instance, to walk in the healthiest way the movements must be brisk, the shoulders held back, the head erect, the breathing deep, and the muscles unimpeded by tight clothing or long, heavy skirts. Those who walk thus generally find pleasure in the exercise, and reward in the after-effects. General exercise is a necessity of healthy life; and with regard to any particular portion of the body

which is weak or diseased, special exercise, sometimes in the passive form of massage, can do very much good. Each individual must know and supply his or her own needs in this direction.

In illustration of this, cases of consumptive tendencies may be noticed in which the lungs must be strengthened by breathing fresh air ; arm, shoulder, and breathing exercises are usually very beneficial. In cases of unhealthy blood and weak digestion, deep breathing and bending exercises purify the one and strengthen the other. Bending the head and body backwards and forwards strengthens the muscles of the back, and is thus one of the exercises of assistance in lateral curvature of the spine. Of good effect to flat-footed persons and to those in whom the calves of the legs are undeveloped is the exercise of raising alternately the heels and the toes. Balancing exercises—such as raising one leg behind and then sideways, or keeping the body quite rigid and slightly inclining it forward and then recovering an upright position—are said to be of use to the nervous system. The internal organs are strengthened generally by bending exercises. For constipation, or an unhealthy, torpid liver, any exercise which brings the knee and chest together is very useful. Certain exercises which strengthen the female generative organs have already been given.

All exercises must be practised in an airy

place, and in loose clothing ; otherwise little benefit is obtained. Many good appliances are now to be procured ; but there are any number of exercises of all kinds and for all conditions which need no accessories but *will* and *opportunity* in their accomplishment.

Taking exercise in its broadest sense of the right use of every part of our being, it goes without saying that under whatever conditions we must exist, most of us have the opportunity, and ought to possess the capability, of improving those states of life "unto which it has pleased God to call us," of raising and purifying them until all waste and evil is eliminated, until we ourselves are completely transformed from any former states of degradation. Thus we can strive to gain—grasping being always and only preceded by reaching—our natural and high degree of human perfection.

*Food.*—Discretion in the use of that by which the body lives is one of the first lessons to be learnt when health is desired. There are many people who have their own or borrowed ideas concerning various kinds of dietary, and who eat more or less intelligently. But by far the majority take very little thought indeed about the suitability of their food until some disorder, brought on by indiscretion, "gives them pause."

In considering the suitability of food when applied individually, such points as the amount and kind of work or exercise, the age, the constitution, and the climate or time of year, must



all be taken into account. The active energy which is shown and used up in all exercise or mechanical motion has its source in the food taken. Thus a man taking much exercise, or employed in manual labour, has need of a more generous diet than another leading a sedentary or quiet life. The mental labourer requires different quality and quantity in his food to the manual labourer.

In stable management, it is one of the first rules that a horse is fed proportionately to the amount of work which is required of him. Little work means fewer oats. A horse standing in his box in high condition, over-fed because under-exercised, falls a ready prey to many diseases from which he would otherwise be entirely exempt.

Young people, especially those still growing, require more food than the middle-aged or elderly, in order to make up for the growth and change of tissue which is taking place.

With regard to constitution, it sometimes happens that "what is one man's meat is another man's poison." The writer knows one man to whom eggs in any shape or form are positive poison, and another who practically lives and thrives on them.

When a child exhibits a violent dislike to any particular article of diet it is very often due to natural instinct which rightly—and sometimes it is to be deplored uselessly—warns its possessor that such food is not good for it.



Therefore firmness, when unwisely applied in such cases, may degenerate into cruelty and harm to the child.

In cold weather or in cold countries a larger quantity and a more heat-giving quality of food are required than in seasons or places where the thermometer is high. Fat, as an article of diet because of its heat-imparting properties, and as an external skin-food and protection against cold, is extensively used in northern countries. In the tropics and warm southern countries its place is taken by farinaceous and starchy foods.

Considering how quickly the food of to-day is incorporated into, forms an actual part of the body of to-morrow, it follows that the stomach should receive far more consideration than generally falls to its share. Food should contain, if properly prepared, various elements of nutrition in their right proportion. Thus, there are the proteids, albuminoids, mineral matters, and water, all of which chiefly perform the functions of repair and growth. Then the fats and the carbo-hydrates serve as fuel whereby the heat of the body is kept up and energy is generated. The mineral matters are necessary for the formation of bone and heat ; water constitutes four-fifths of the tissues of a baby, so its presence is necessary always to provide for the restoration of these tissues and for the building up of new ones. If one or the other of these kinds of nutrition is lacking from the diet, the disease-resisting capacity of

the body is lowered, and in one way or another ill-health results.

Thus over-eating does not necessarily mean that too great a quantity of food is taken ; too much or too little of any particular kind of nutriment in proportion to the other kinds may easily lead to the illnesses following over-eating.

A vegetarian diet is the choice or sometimes the necessity of very many people ; nine-tenths of the world's population, it is asserted, are vegetarian. Its supporters are convinced that it purifies the blood, strengthens the digestion, sharpens the wits, and is pre-eminently the diet that imparts long life and muscular and moral strength. In the Russo-Japanese War rice was the staple food of the Japanese. In fact, this particular grain alone is said to support three-quarters of the entire population of the world. Adam Smith, in his "Wealth of Nations," states that "the most beautiful women in the British dominions are said to be, the greater part of them, from the lower ranks of the people of Ireland, who are generally fed on potatoes. The peasantry of Lancashire and Cheshire also, who live principally on potatoes and butter-milk, are celebrated as the handsomest race in England."

That meat is not a necessity of diet nor conducive to long life is obvious—great meat-eaters are indeed stated to be seldom long-lived—and yet it is probable that in a healthy con-

dition, suitably cooked, and eaten in moderation, meat can be the reverse of injurious, can even prove a necessary and beneficial part of the diet. Those who have been meat-eaters all their lives, and who are probably descended from ancestors of similar habits, would find it necessary to exercise great caution in gradually giving it up ; in fact, there are doubtless many who would, even by so doing, find a decided deterioration in their health—at any rate, for a considerable time while the body was accustoming itself to the change taking place.

Meat of all kinds, particularly pork, is liable to be tainted with disease, the utmost care therefore being necessary in the buying and cooking of it. The supervision at present given to animals to be slaughtered for food leaves much to be desired. Beef, mutton, poultry, and even horseflesh, which has been adopted as an article of diet (sometimes perhaps unconsciously) in some civilised countries, are the most wholesome meats. The last-named is entirely free from tuberculosis, and, compared to the meat of the domesticated pig, is a much cleaner, if coarser, meat.

Three meals a day, the last one light and not late in the evening, are sufficient food for those who, without going to extremes, wish to give their health some consideration. Promiscuous eating between meals is harmful, for it gives the digestion extra work, and when anybody or anything is overworked the worker or

the work is bound to suffer ; generally both are affected.

Wholesome, simple fare will keep a man healthy many more years than a rich, stimulating, much-spiced diet. For those living in temperate zones, farinaceous food, milk, and fruit should form a substantial part of the diet. The dessert course at the end of the meal is in the wrong place, for fruit has generally the best effect when eaten first. It can, with advantage to most people, be partaken of at the beginning of each meal. Such fruit as prunes, apples, oranges, figs, or rhubarb, eaten as a first course at breakfast, are excellent aids to the complexion and to the relief of constipation. Apples, containing phosphorus and acids, and nuts with their fat and albumen, are very nutritious. While eating, drinking should be avoided more or less. To swallow food quickly and insufficiently masticated, and to assist the act of swallowing with an immediate drink, is adding insult to injury to an already busy and more often than not overworked digestion. There are many who firmly believe in the good effects of occasional fasting. Sometimes they omit one of the regular meals every other day, or fast an entire day once in two or three weeks, and they assert that most happy results follow this extra rest to the digestive organs. The reverse opinion on fasting is held by many other people, who state that the digestion must be treated with regularity, that it can be almost

as injurious to miss a meal as to take an extra and unneeded one.

To be well digested, all food must be properly masticated and mixed with the saliva in the mouth before it is swallowed. As a noted physician tells his patients, "the shorter the time you allow for eating, the longer the time you will be obliged to spend in being ill."

That the condition of the teeth has a most important bearing on the proper mastication and consequent digestion of food, and on health generally, is obvious. No safer investment can be made which so surely repays the investor by contributing to health, wealth, and happiness than that of taking care of the teeth, of bestowing on them regularly the attention they are bound to require if kept in proper working order.

*Water.*—Water is Nature's purifier, and to man it is indispensable both for external and internal use. When pure and soft there is no better drink, for besides quenching thirst it cleanses the body, washing away impurities and increasing the circulation. Hard water contains lime. The simplest way of ridding water of all impurities is to distill it, but this gives it a somewhat flat, uninteresting taste. Filtering through fine sand and charcoal, sterilising, and boiling are other ways of purifying it, any one of which is strongly advisable when there is any doubt concerning its purity. Promiscuous water-drinking, when the supply comes from a doubtful source, or where there is any risk

of contamination, is the cause of much illness and many more deaths than is imagined.

Generally speaking, women drink too little water. Three pints a day of some liquid is about the usual quantity advised.

Water is a preventive as well as a curative agent, and is much used in the natural method of healing. Every person should have some knowledge of the uses of hydropathy. It is true that there are cases in which the water treatment has been overdone, but they are of rare occurrence ; cases of too little water-treatment are, on the other hand, far too common, and the effects can be equally disastrous.

A cold, tepid, or warm bath—according to the individual requirements—should be taken once a day, preferably before breakfast ; when this is occasionally impossible, the body should be thoroughly and quickly sponged all over and then briskly rubbed with a moderately rough towel. A pure vegetable soap should be used, and for the face (if soap be objected to, and if the skin be not already of too dry a nature) a little coarse oatmeal may be rubbed on it and then sponged off. When going to bed the hands and face at least should be bathed. Because of its greater power of cleansing, a hot bath should be taken once or twice a week, however many cold or tepid ones are indulged in. At least two hours should elapse after a meal before taking a bath of any description, so that the digestion may have time, more or



less, to finish its work. Otherwise the hot water, acting on the skin, draws away the blood from its duty of helping the digestion.

With the doctor's permission, occasional Turkish and cabinet baths may be taken as especially cleansing, and as beneficial in many cases of rheumatism, chills, muscular soreness, and other things. But care must be exercised afterwards that cold is not taken through the open pores of the skin.

In cases of inflammation or congestion a cold-water compress over the afflicted part is frequently an immense relief; the compress may be left uncovered and renewed when necessary. When there is a torpid condition of any particular part, and it is necessary to excite the action of the skin, the compress must be covered up thoroughly so as to act as a poultice. Fomentations are compresses wrung out in hot water; the drier they are wrung the hotter they can be applied. They are used to relieve pain, to counteract chill, and to alter the circulation of any part.

If properly taken, sitz-baths are most beneficial for weakness of the generative organs, for rousing the kidneys to action, for piles, constipation, and many other maladies. The method of taking this bath has already been described. The results will be found pleasantly surprising in the feeling of freshness and strength imparted, and the sufferer from insomnia will find that it relieves and calms the brain.



Injectations of water into the rectum by means of an enema are of much use in constipation, diarrhœa, dysentery, &c., and injections into the vagina by means of the douche for many female weaknesses.

The value of cleanliness, in mind and body, can hardly be over-estimated. It is no wonder that the old proverb places it next to godliness in the list of the cardinal virtues. It is one of the necessary adjuncts to good health—that great blessing which ought naturally to be possessed and enjoyed all through life, were it not for the insanitary, careless, and unnatural habits of living acquired and practised by our ancestors and by ourselves.

“What will you have? quoth God; pay for it and take it”; and so, according to the law of compensation, our civilisation makes us pay a definite price for our taming by giving us curses as well as many blessings.

## CHAPTER XX

### CAUSES OF DISEASE

“Think first what you are! Call to mind what you were!  
I gave you innocence, I gave you hope,  
Gave health and genius, and an ample scope.  
Return you Me guilt, lethargy, despair?”

—S. T. COLERIDGE.

DISEASE is the opposite of health, and as the effects of the latter are shown by natural ease and happiness, so are those of the former by pain and misery, by *dis-ease*. “Pain is Nature’s cry for rest,” or, better still, for healthy blood. Fever is general blood infection; inflammation is infection locally.

The cause of disease may be *indirect*, inborn in the sufferer through the laws of heredity; so truly showing how the sins of the parents can be visited on their innocent offspring to the third and fourth generation. Many are thus handicapped in life, born either with a tendency to some particular disease, a taint, a weakness in some spot, or in rarer cases with the germs of some disease actually in their systems. This

cause has already received attention in its bearing on parenthood.

The cause of disease may also be what is understood as *direct*; such as results from taking germs from an outside source, from an accident, from poison, from bad habits. Some diseases are more liable to attack women than men, such as anæmia, gastric catarrh, and even cancer; while diabetes, gout, and others are said to number more male victims. The many maladies to which the female generative organs are subject are terribly numerous, one or another of them in some shape or form being actually stated to be present in every other woman; other authorities give even a higher percentage than this. That there is ample reason for this state of things is unhappily only too obvious, when one considers the ignorance and the sheer indifference concerning ordinary matters of health which are to be met with on every hand.

Disease caused directly by *bad habits of living*, such as eating diseased or unwholesome food, or the continuous breathing of bad air, is common. The habit of self-pollution or masturbation is one which can lead to many evils. This solitary indulgence of amativeness, beginning, like most other bad habits, in a small way, may soon become an actual disease of the generative organs. The shock and loss of power consequent on the nervous orgasm affects the whole system, all the vitality of which is thus

drained and wasted at a time when it is more than ever needed for proper physical development. A long train of organic and nervous diseases may result. Symptoms of this vice are : a morbid condition of mind which shrinks into itself, and which is manifested by an embarrassed appearance under the gaze of others, and by a desire for solitude; unaccountable pains and bodily languor and weakness; dyspepsia; loss of memory ; unhealthy skin and dull eyes, and other unhealthy tendencies. The victim who is initiated into it, or who stumbles across it unwittingly, may be too young to possess reason or to exercise conscience. Even older children at the age of puberty, although surely knowing that it is a shameful and unhealthy practice, can have no idea of the extent of its harmfulness unless they are warned against it. One doctor says that " thousands of children of both sexes are corrupted and ruined through sheer ignorance." The choice of a clean-minded nurse, and a separate bed for each child, are two all-important points for protection against it. But the greatest safeguard of all is to explain to children the nature of this habit and the inevitable consequences arising from the pursuit of it. And especially is this duty of parents necessary before children are sent to school, for it is appalling how prevalent this habit is said to be in boys' and, alas ! even in girls' schools. Yet there is hardly a parent who would not indignantly

repudiate the idea that a child of his or hers could possibly be guilty of such behaviour. When a victim to the habit is discovered, he or she must receive immediate and kindly attention in the way of moral teaching and hygienic living. Kindness and sympathy are essential, for the habit may have grown beyond the power of the child's resistance. The sufferer may be more unfortunate than actually guilty, and persuasion and tact may accomplish far more than stern measures. Overheating the body by unsuitable food or by too much or too heavy clothing should be avoided, and daily thorough bathing insisted on. Frequently it is wisest to consult a doctor at once about this trouble, as it is often the result of some curable local irritation.

*Intense worry or anxiety* is a prolific cause of disease ; in fact, the single strong feeling of fear alone can cause it, thus showing the power of the mind over the body. On the other hand, it is marvellous how much nerve disease or weakness entirely disappears if the mind can but realise the fact that no disease is actually present. If the mind is capable of forcing itself to hold thoughts of good health and strength, if it strictly avoids weakening itself by over-fatigue or by encouraging thoughts of illness, by degrees the good strong thoughts grow and multiply and attract similar thoughts. They achieve the upper hand and the weak ones are ousted ; the mind rights itself, as it

were, and the nerve trouble is forgotten, thus proving the supremacy of the will of the spirit over the mind. This is one of the old, old truths of the world, the knowledge of whose existence and power dawns but slowly and dimly on most of us.

*Excess in anything*, in the gratification of any passion or appetite, exhausts the valuable nervous energy, drains away the vitality of the whole system, and thus wastes life itself.

Bishop South mentions another veritable stumbling-block to health in the prevalence of *indolence*. "Excess is not the only thing that breaks men in their health, and in the comfortable enjoyment of themselves, but many are brought into a very ill and languished habit of body by mere sloth, and sloth is in itself both a great sin, and the cause of many more."

*The abuse of dress*, chiefly confined to girls and women, has many diseases to be laid at its door. The effect of too heavy or too much clothing is to weaken the skin and to retard perspiration. The weight of heavy skirts should not be borne by the waist, because this displaces the internal organs and spoils the symmetry of the figure. Long skirts trailed on the ground gather up stray germs of every horrible description. Clothing that is too tight is especially injurious, for it deters the action of the diaphragm, hinders free muscular action, interferes greatly with the circulation of the blood, and most seriously cramps and com-



presses all the vital organs of the wonderfully-made female body into perhaps one-half of their natural and necessary space. Through tight-lacing the number of diseases peculiar to women is more than doubled. When the internal organs are crowded one on the other, the liver and stomach pressed up or down, and that delicate piece of mechanism—*the uterus*, or womb, thrown out of position and out of healthy working order, it is no wonder that sooner or later ill-health results, health that is never good and frequently very bad. What a comparative rarity is a beautifully formed, perfectly healthy woman—healthy mentally and physically !

From the earliest stages of civilisation corsets have been employed — and frequently barbarously—as a means of enhancing the beauty of bodily form, and whenever worn in anything but intelligent moderation they have brought and still bring one or many curses with them. Men have practically rid themselves of the discomfort of wearing them, and happily an ever-increasing number of them no longer consider tight-lacing a necessary beautifier of female form. There are some men, however, chiefly young and ignorant ones, who by their senseless preference for impossible waists in their women-folk, are greatly to blame for the prevalence of this horrible habit. If they could but cultivate sufficient intelligence to understand what true beauty is, how much they would have it in their power to lessen this evil among



present-day women, and consequently to lessen the effects of it on future generations of both sexes ! A woman can always do much to help her sex, but it frequently happens that a man can do still more.

If the modern hideous fashion-plate figure is taken as a standard of beauty, then corsets—and generally tight ones—are necessary to compel its production. But such a standard is outrageous. The natural shape and grace of woman which has been accepted as the highest work of beauty throughout the ages, which has been preserved for universal admiration in priceless beautiful sculpture, is another creation ; this, and this only, is the womanly physical beauty worthy of admiration and reverence.

Ignorance is one of the commonest reasons why women often deform themselves by tight-lacing. The merest smattering of hygiene, still less of anatomy and physiology, is taught to them during girlhood. A shapely waist, a good figure, is certainly to be admired and desired, but schoolgirls should be taught that this, like many other pleasant things, can be obtained and kept by proper exercise in a way it never can be by injurious artificial aids. Some of those who have worn corsets all their lives state that they must use them to support the bust, but the bust should need no supporting. Even if it is necessary there are plenty of proper bust-supporters, and even of well-made hygienic corsets to be had, which would answer this purpose

far better than tight, high cases of steel and bone.

To relieve the drag of the skirts round the waist, which is experienced sometimes on entirely giving up corsets, and which is partly caused by too tight waist-bands, but chiefly by weakness of the muscles in this spot, bending exercises are of use. A useful one is that of bending slowly from an upright position sideways to right, and then to left, with the hand on the reverse outstretching side of the waist-line pressing against that side.

The narrow ribbon-corset, with a few of the bones taken out, is the least harmful specimen of this article of clothing. In fact, if worn sensibly, the harm of it is infinitesimal, and it certainly successfully removes any feeling of waist strain.

Another abuse of dress is the wearing of tight and high-heeled boots and shoes. By this bad habit there is hardly an ailment that is not aggravated. Besides interfering with the circulation of the blood, high heels throw the whole body backwards—in order to keep its balance—and altogether out of its proper line. Because they thus alter the inclination of the pelvis they should be avoided by women suffering from internal complaints, and especially during pregnancy by all women.

Heavy clothing, or too much of it, is another habit as common as it is bad, and is responsible for much ill-health. The body should be

gradually accustomed to wearing as little clothing as possible, merely sufficient to preserve comfortable warmth, and never so much that the skin becomes weakened by it and consequently increasingly susceptible to cold.

*Occupation* is sometimes a cause of disease, though much has been and is still being done to render harmless various forms of employment which were formerly most injurious.

*Environment* is an important factor of health. It is frequently the misfortune rather than the fault of many that they cannot alter their surroundings, brought about as they often appear to be by a chain of events which seems at first impossible to prevent and afterwards impossible to break through. To make the best of them is, then, the only way by which they can help themselves and others. And the word "best" is elastic, depending on the capacity and strength, on the determination and power, of the individual.

"Two men looked out of prison bars :  
The one saw—mud, the other—stars."

*The existing state of health* of an individual has naturally much to do with his or her liability to take disease. In a nervous, exhausted condition, the body has not sufficient strength to resist the germs of disease, which, if brought into contact with a better state of vitality and power of resistance, would have

so much the more difficulty in securing a footing. Prevention is always better and so much easier than cure, and good health is worth treasuring even at the cost of a little thought and trouble. Unfortunately, experience has so frequently to teach the force of this truth before its importance is realised.

However, in spite of the manifold causes of disease, in spite of the misery and pain entailed by carelessness and ignorance, "life is full of hope and consolation-; we observe that crime is on the decrease, and that men are becoming more humane. The virtues as well as the vices are inherited-; in each succeeding generation the old ferocious impulses of our race will become fainter and fainter, and at length they will finally die away." <sup>1</sup>

<sup>1</sup> Winwood Reade.



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